GenRad

DIAGRAMS
AND
PARTS LISTS

2511/2514

VIBRATION
CONTROL SYSTEMS

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Form No. 2511-0102
Revision 1
January 1984

SANTA CLARA FACILITY
2855 Bowers Avenue, Santa Clara, CA 95051 Telephone (408) 727-4400

REVISION NOTICES

NOTE: All drawings and parts lists in this package will be of the current revision level when the equipment is shipped. The revision notices below apply only to the introductory material and the contents as reflected in the drawing breakdown index on the following pages.

Revision 1, May 1983, PRB#

This reference drawing package has been assembled in conjunction with initial release of the 2511/2514 Service Manual, Form 2511-0101.

INTRODUCTION

This volume contains the reference diagrams and parts lists for the 2511/2514 Vibration Control System (VCS) Service Manual. These drawings are a subset of the actual manufacturing drawings and Lists of Material used in production of the 2511/2514. The following notes and general descriptions are provided as an aid to help you locate the drawings and information in this package.

Drawing Number System

Parts and assemblies and their associated documentation are identified by an eight or ten digit number with a two-character suffix to show the type of drawing as follows:

xxxx-yyyy-zz-nn/rev

xxxx identifies either a class of purchased part or the GenRad project number for which the part was first designed.

yyyy is the specific part number. There are some conventions in these assignments, such as -9000 for catalog items, -3000 for major assemblies, -4700 for circuit board assemblies, and so forth, but there are also frequent exceptions and this is of little significance for reference purposes.

zz These two digits are used only when there is more than one current version of a part, such as cables that are identical except for length, or revised circuit boards that are not interchangeable with previous versions.

nn These two characters identify the type of drawing or document as follows:

- -1D Assembly Drawing
- -1L Assembly List of Materials (Parts List)
- -2D Assembly Schematic or Wiring Diagram
- -4D Assembly Wire List
- -5D Miscellaneous, such as structural breakdown tree diagrams
- -6D Miscellaneous, such as detailed electrical block diagrams or overall schematic and interconnection diagrams.

/rev If it is necessary to identify a particular issue or version, the revision is appended with a slant, e.g., /1, /2, etc.

General Order of Arrangement

The -1D assembly drawings and their associated -4D wire lists or -2D schematics are arranged in a top-down breakdown order which is determined from the -1L Lists of Materials. The breakdown order and assembly relationships are shown in the indented drawing index list on the following pages. This order makes it easier to find desired assemblies by a quick inspection because it has the general effect of grouping all peripheral units and external cables at the front, followed by the mechanical box assembly with its internal cables, then the LSI and ADS backplane assemblies with their associated cables, and finally all circuit board assemblies and their schematics. This arrangement also keeps cable assemblies near their associated wire lists which are usually carried under the next higher assembly drawing numbers as noted below. The circuit board assemblies, ADS first, then LSI, are arranged generally in order of signal flow, then numerically when signal flow does not apply.

The -1L List of Materials drawings are all grouped together at the front, and are arranged in numerical order. This is based on the assumption that the most common form of cross reference will be from an assembly drawing or schematic to a parts list, and they will be easier to find in numerical order rather than breakdown order.

Cable and Harness Drawings

Some of the cable and harness drawings included in this package are strictly for manufacturing purposes, representing only the jig layouts used to build the harnesses. The drawings are not representative of the physical part, but they are included here to maintain continuity of the breakdown order and to associate the cable with its next higher assembly for the following reasons:

Schematics and/or Wire Lists for cables and harnesses are usually included in an overall schematic or wire list for their higher assembly. For example, cables that are assembled as parts of the two card-connector backplanes have their wire lists carried under the backplane assembly part numbers. All of those backplane cables, plus the ones assembled with the overall chassis, are shown schematically on the schematic diagram associated with the highest level chassis assembly drawing. In most cases, these cable wire lists can be easily found by turning back a few drawings in the top-down arrangement. References to the appropriate wire lists and schematics are also shown in the drawing index list.

Miscellaneous Notes

- The Printer Interface Circuit Board Assembly is phsycially mounted in the printer cabinet, and is listed as part of the overall Printer Assembly. However, the board assembly drawing and schematic, 2501-4705, are inserted in numerical order with the other 2501 circuit boards near the end of the drawings to keep all circuit boards grouped together.

- The abbreviations and notes in the breakdown index have the following meanings:

  NA Not Applicable. The drawing either does not exist or does not have any necessary reference information.

  REF indicates either a vendor part that is listed for reference and does not have a drawing, or an information drawing that does not correspond to an assembly number.

ASSEMBLY BREAKDOWN DRAWING INDEX

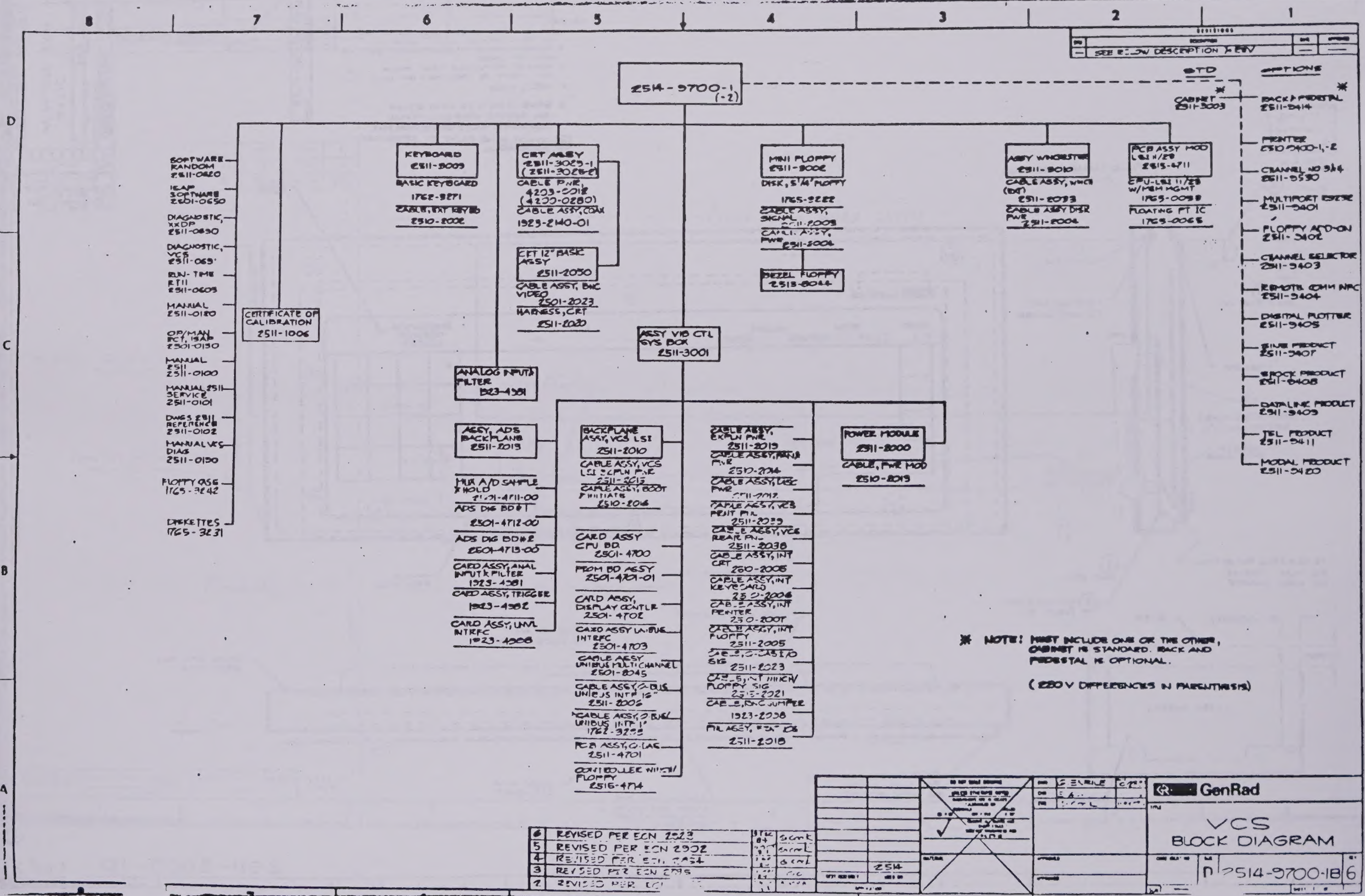
Vibration Control System, 110V, 2514-9700-1
Vibration Control System, 220V, 2514-9700-2
Vibration Control System, 110V, 2511-9700-1
Vibration Control System, 220V, 2511-9700-2
Vibration Control System, Block Diagram, 2511-9700-1B
Vibration Control System, Block Diagram, 2514-9700-1B

-1L Lists of Materials in numerical order.
-1D Assy Dwgs, -2D Schematics, -4D Wire Lists in order listed below.

Name (1 2 3)	Assembly Part No.	Assy -1D	Schematic -2D / Wire List -4D	Parts -1L
Vibration Control System, Block Dia.	2511-9700	N/A	-1B	-1L
Vibration Control System, Block Dia.	2514-9700	N/A	-1B	-1L
Keyboard Assy	2511-3009	-1D	N/A	-1L
Cable Assy, Keyboard, External	2510-2002	-1D	N/A	-1L
CRT, 12", 110V	2511-3006	N/A	N/A	-1L
CRT, 12", 220V	2511-3007	N/A	N/A	-1L
Power Cord, CRT, 110V	4203-0012	REF	REF	REF
Power Cord, CRT, 220V	2510-2021	-1D	N/A	-1L
Cable Assy, External, BNC-PLUG	1923-2140-01	-1D	N/A	-1L
CRT Basic Assy	2511-2022	-1D	-2D	-1L
Cable Assy,Internal, Video	2501-2023	-1D	N/A	-1L
Harness Assy, CRT, Internal	2501-2028	-1D	(on -1D)	-1L
Mini-Floppy Disk Drive	2511-3002	-1D	N/A	-1L
Cable Assy, 1st Mini-Floppy Sig	2511-2003	-1D	N/A	-1L
Cable Assy, 1st Mini-Floppy Pwr	2511-2004	-1D	-4D	-1L
Winchester Disk Drive	2511-3010	-1D	N/A	-1L
Disk Drive, Winchester 5¼" 10M Byte	1765-3222	Ref,	vendor component	N/A
Cable Assy, Winchester (Ext.)	2511-2033	1D	N/A	1L
Winchester (INT), Cable	2511-2034	1D	N/A	1L
Printer Assy (Option) 110V, 60 Hz	2510-9400-1	-1D	N/A	-1L
Printer Assy (Option) 110V, 50 Hz	2510-9400-3	-1D	N/A	-1L
Printer Assy (Option) 220V, 50 Hz	2510-9400-2	-1D	N/A	-1L
Power Cord (included w/printers, see -1L for 220V plug)				
Cable Assy, Printer, External	2510-2004	-1D	N/A	-1L
Printer, Basic Assy	2501-2066	-1D	N/A	-1L
Harness Assy, Printer	2501-2067	-1D	-4D	-1L
Kit, Connectors	2501-2068	N/A	N/A	-1L
Interface PCB Assy	2501-4705	-1D	-2D	-1L
	(Note: Assy drawings and schematics are grouped with 2501 circuit boards at end of list)			
Power Module Assy, 115V	2511-2000	-1D		-1L
Cable Assy, Pwr Mod 115V	2510-2012	-1D	See 2511-2000-4D	-1L
Power Cord, Main, 115V	4203-0012	REF	REF	REF
Power Module Assy, 230V	2511-2001	-1D		-1L
Cable Assy, Pwr Mod 230V	2510-2013	-1D	N/A	-1L
Power Cord, Main, 230V	4203-0012	REF	REF	REF

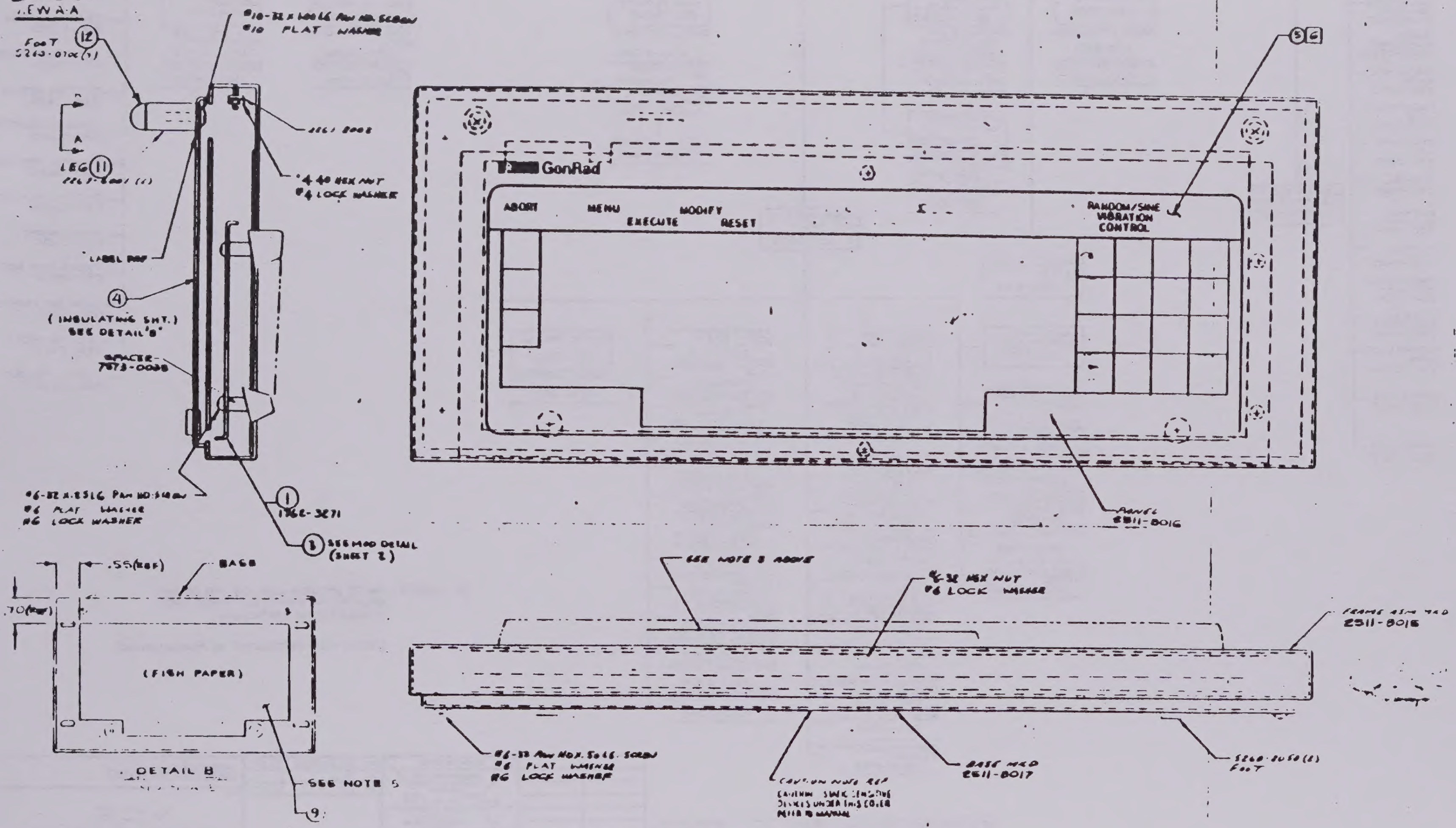
Name 1 2 3	Assembly Part No.	Assy -1D	Schematic -2D Wire List -4D	Parts -1L
Box Assy, 2511 Unit	2511-3001	-1D	-2D	-1L
	(NOTE: Box schematic 2511-3001-2D includes all chassis and backplane cables)			
Cable Assy, Front VCS	2511-2039	-1D	-4D	-1L
Cable Assy, Rear Panel VCS	2511-2038	-1D	-4D	-1L
Front Panel Assy	2511-2018	-1D	N/A	-1L
Frame Assy, Box	2511-3000	-1D	N/A	-1L
Cable Assy, Fan -				-1L
Power -On/Off(P1)	2510-2014	-1D	See 2510-3000-4D	-1L
Power Supply 12V DC, 8 amps, 375 watts	1762-3289	Ref,	vendor component	-1L
Cable Assy, CRT, Internal	2510-2005	-1D	N/A	-1L
Cable Assy, Keyboard, Internal	2510-2006	-1D	N/A	-1L
Cable Assy, Printer, Internal	2510-2007	-1D	N/A	-1L
Cable Assy, Internal Floppy	2511-2005	-1D	N/A	-1L
Cable Assy, Unibus Multi-Channel	2501-2045	Ref,	non-rep assy	-1L
Cable Assy, Q-Bus/Unibus INFC 16"	2511-2006	-1D	-4D	-1L
Cable Assy, Q-Bus/Unibus INFC 1"	1762-3293	Ref,	vendor component	-1L
Cable, Int WINCH/FLOPPY	2515-2021	-1D	-2D	-1L
Cable, BNC Jumper	1923-2098	-1D	N/A	-1L
Cable Assy, Internal Floppy Pwr	2511-2012	-1D	-4D	-1L
Wire List, Frame Assy, MicroModal	2510-3000	N/A	-4D	-1L
Cable Assy, Pwr, to Backplanes (P2,P3)	2511-2019	-1D	-4D	-1L
Power Supply	1762-3289	Ref,	vendor assy	
VCS LSI Backplane Assy	2511-2010	-1D	-4D	-1L
Cable Assy, BP Pwr (J3)	2511-2015	-1D	-4D	-1L
Cable Assy, Boot Switch	2510-2016	-1D	N/A	-1L
Wire Wrap, LSI Backplane	2510-4700	-1D	-4D	on-1L
VCS ADS Backplane Assy	2511-2013	-1D	-4D	-1L
Input & Filter Ckt Bd Assy	1923-4981	-1D	-2D	-1L
Sample & A/D Ckt Bd Assy	2501-4711-00	-1D	-2D	-1L
Trigger Ckt Bd Assy	1923-4982	-1D	-2D	-1L
Digital Ckt Bd Assy #1	2501-4712-00	-1D	-2D	-1L
Digital Ckt Bd Assy #2	2501-4713-00	-1D	-2D	-1L
Univ Interface Ckt Bd Assy	1923-4988	-1D	-2D	-1L
CPU Ckt Bd Assy	2501-4700	-1D	-2D	-1L
PROM Ckt Bd Assy	2501-4701-01	-1D	-2D	-1L
Display Ckt Bd Assy	2501-4702	-1D	-2D	-1L
U-Bus Intfc Ckt Bd Assy	2501-4703	-1D	-2D	-1L
Printer Intfc Ckt Bd Assy	2501-4705	-1D	-2D	-1L
	(NOTE: This Ckt Bd Assy is part of Basic Printer 2501-2066)			
Q-DAS Circuit Bd Assy	2511-4701	-1D	-2D	-1L
Controller WINCH/FLOPPY	1765-3223	Ref,	vendor assy	

Name 1 2 3	Assembly Part No.	Assy -1D	Schematic -2D Wire List -4D	Parts -1L
Cable Assy, Q-DAS I/O Signals	2511-2023	-1D	-4D	-1L
LSI 11/2 CPU	2511-3013	N/A	N/A	-1L
PCB Assy, KD11-HA MOD	2510-2020	-1D	-2D	-1L
LSI 11/23 CPU	2511-9413	N/A	N/A	-1L
PCB Assy, Modified LSI 11/23	2515-4711	-1D	N/A	-1L
CPU-LSI 11/23 with MEM MGMT	1765-0053	Ref,	vendor component	N/A
Floating point IC	1765-0065	Ref,	vendor component	N/A
32 K Memory Board	2511-3012	Ref,	vendor component	-1L
64 K Memory Board	1765-0068	Ref,	vendor component	-1L
Unibus Terminator M9302	1762-3800	Ref,	vendor component	N/A
Floppy Disk Controller	1765-3223	Ref,	vendor component	-
Signal Splitter	1765-3225	Ref,	vendor component	-
Cable Assy, Controller	2515-2021	-1D	-2D	-1L
Multiport RS232	2511-9401	N/A	N/A	-1L
Cable Assy, RS232 Interface	2511-2030	-1D	-4D	-1L
Floppy Add-on	2511-9402	-1D	N/A	-1L
Cable Assy, Signal	2511-2031	-1D	N/A	-1L
Cable Assy, Power	2511-2032	-1D	-4D	-1L
Channel Selector	2511-9403			
Cable Assy, Channel Select (inter)	2511-2025	-1D	-4D	-1L
Cable Assy, Coax, BNC Plug 7 FT	1923-2140-01	-1D	N/A	-1L
16 Channel Selector Assy	2511-3015	-1D	-2D	-1L
Cable Assy, (Ext)	2511-2024	-1D	N/A	-1L
Remote Communication Interface	2511-9404	N/A	N/A	-1L
Assy, Remote Communication Panel	2511-3011	-1D	N/A	-1L
Cable Assy, Commands from Remote	2511-2028	-1D	-4D	-1L
Cable Assy, Status to Remote	2511-2029	-1D	-4D	-1L
Cable Assy, Parallel Interface I/O	2511-2027	-1D	-4D	-1L
Digital Plotter	2511-9405	N/A	N/A	-1L
Cable Assy, 4662 Plotter Interface	2510-2024	-1D	N/A	-1L


2514-9700-1 (-2)
STD
OPTIONS
CABINET 2511-3003
BACK & PEDESTAL 2511-5414
PRINTER 2510-9400-1,-2
CHANNEL NO 914 2511-9550
MULTIPORT EXPANSE 2511-5401
FLOPPY ADD-ON 2511-5402
CHANNEL SELECTOR 2511-5403
REMOTE COMM NPC 2511-5404
DIGITAL PLOTTER 2511-5405
SINE PRODUCT 2511-5407
SHOCK PRODUCT 2511-5408
DATALINE PRODUCT 2511-5409
TEL PRODUCT 2511-5411
MODAL PRODUCT 2511-5420
SOFTWARE RANDOM 2511-0620
IEAP SOFTWARE 2501-0650
DIAGNOSTIC, XXDP 2511-0650
DIAGNOSTIC, VCS 2511-065
RUN-TIME RT11 2511-0605
MANUAL 2511-0120
OP/MAN RCT, ISAP 2501-0130
MANUAL 2511 2511-0100
MANUAL 2511 SERVICE 2511-0101
DWGS 2511 REFERENCE 2511-0102
MANUAL VCS DIAG 2511-0150
FLOPPY DSG 1765-3242
DISKETTES 1765-3231
CERTIFICATE OF CALIBRATION 2511-1006
KEYBOARD 2511-3009
BASIC KEYBOARD 1762-9271
CABLE, EXT KEYBD 2510-2002
CRT ASSY 2511-3025-1 (2511-3026-2)
CABLE PWR, 4203-2018 (4200-0280)
CABLE ASSY, COAX 1923-2140-01
CRT 12" BASIC ASSY 2511-2050
CABLE ASSY, BNC VIDEO 2501-2023
HARNESS, CRT 2511-2020
ANALOG INPUT FILTER 1923-4581
MINI FLOPPY 2511-3002
DISK, 5 1/4" FLOPPY 1765-3222
CABLE ASSY, SIGNAL 2511-2003
CABLE ASSY, PWR 2511-2004
BEZEL FLOPPY 2513-8044
ASSY WINCHESTER 2511-3010
CABLE ASSY, WNCH (DF) 2511-2093
CABLE ASSY DISK PWR 2511-2004
PCB ASSY MOD LSI 11/23 2515-4711
CPU-LSI 11/23 W/MEM MGMT 1765-0058
FLOATING PT IC 1765-0065
ASSY VIB CTL SYS BOX 2511-3001
ASSY, ADS BACKPLANE 2511-2019
MUX A/D SAMPLE & HOLD 2501-4711-00
ADS DIG BD #1 2501-4712-00
ADS DIG BD #2 2501-4713-00
CARD ASSY, ANAL INPUT & FILTER 1923-4581
CARD ASSY, TRIGGER 1923-4582
CARD ASSY, UNVL INTRFC 1923-4508
BACKPLANE ASSY, VCS LSI 2511-2010
CABLE ASSY, VCS LSI BCPLN PWR 2511-2015
CABLE ASSY, BOOT INITIATE 2510-2016
CARD ASSY CPU BD 2501-4700
PROM BD ASSY 2501-4701-01
CARD ASSY, DISPLAY CONTLR 2501-4702
CARD ASSY UNIBUS INTRFC 2501-4703
CABLE ASSY UNIBUS MULTICHANNEL 2501-8045
CABLE ASSY, Q-BUS UNIBUS INTF 12" 2511-2006
CABLE ASSY, Q BUS/ UNIBUS INTF 1' 1762-3255
PCB ASSY, Q-LAG 2511-4701
CONTROLLER WINCH/ FLOPPY 2516-4714
CABLE ASSY, EXPLN PWR 2511-2019
CABLE ASSY, MAIN PWR 2510-2014
CABLE ASSY, VCS PWR 2511-2012
CABLE ASSY, VCS FRONT PNL 2511-2039
CABLE ASSY, VCS REAR PNL 2511-2038
CABLE ASSY, INT CRT 2510-2008
CABLE ASSY, INT KEYBOARD 2510-2006
CABLE ASSY, INT PRINTER 2510-2007
CABLE ASSY, INT FLOPPY 2511-2005
CABLE, SIG I/O SIG 2511-2023
CABLE, INT WINCH/ FLOPPY SIG 2515-2021
CABLE, BNC JUMPER 1923-2038
FIL ASSY, FLAT CAB 2511-2018
POWER MODULE 2511-2000
CABLE, PWR MOD 2510-2015
* NOTE! MUST INCLUDE ONE OR THE OTHER, CABINET IS STANDARD. BACK AND PEDESTAL IS OPTIONAL.
(220 V DIFFERENCES IN PARENTHESIS)
SEE BELOW DESCRIPTION & REV
6 REVISED PER ECN 2523
5 REVISED PER ECN 2902
4 REVISED PER ECN 2454
3 REVISED PER ECN 2095
2 REVISED PER ECN
2514
GenRad
VCS
BLOCK DIAGRAM
D 2514-9700-18 6

NOTES:

1. THIS ASM TO BE ASSEMBLED AT AN ANT. STATIC WORK AREA
2. REMOVE THIS [illegible] CMOS [illegible] [illegible] OF BASE
3. REMOVE PROTECTIVE TAPE FROM [illegible] KEY PRIOR TO ASSEMBLY OF KEYBOARD
4. NOT USED
5. BOND ITEM 4 TO BASE USING 3M SCOTCH GRIP INDUSTRIAL ADHESIVE 4475 OR EQUIVALENT.
6. DO NOT BOND INLAY TO KEYBOARD ASSEMBLY.

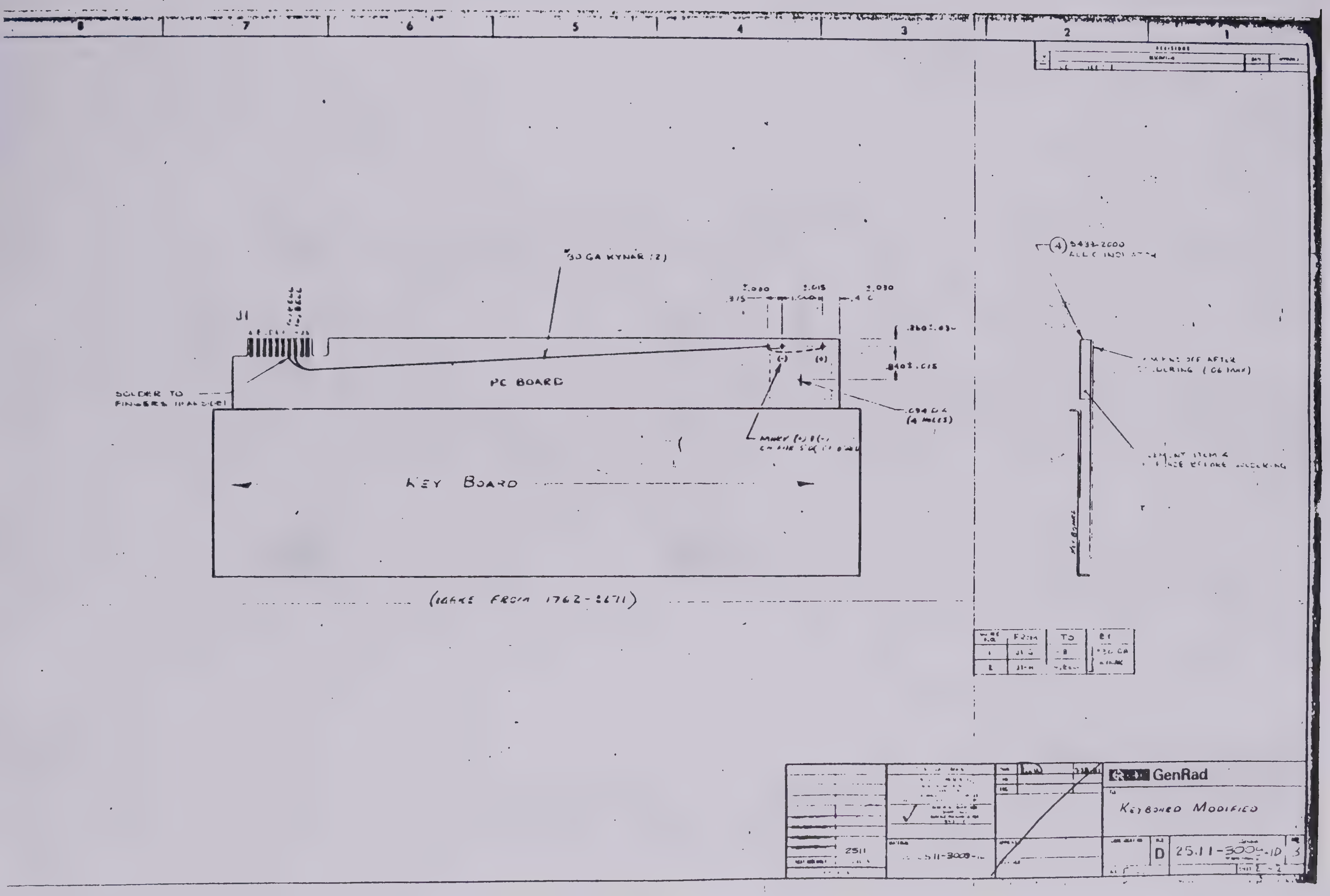


GenRad

BASIC KEYBOARD ASM

PRE-RELEASE
REVISED PER ECN 2706
RELEASED PER ECN 2717

2511-3009-1D

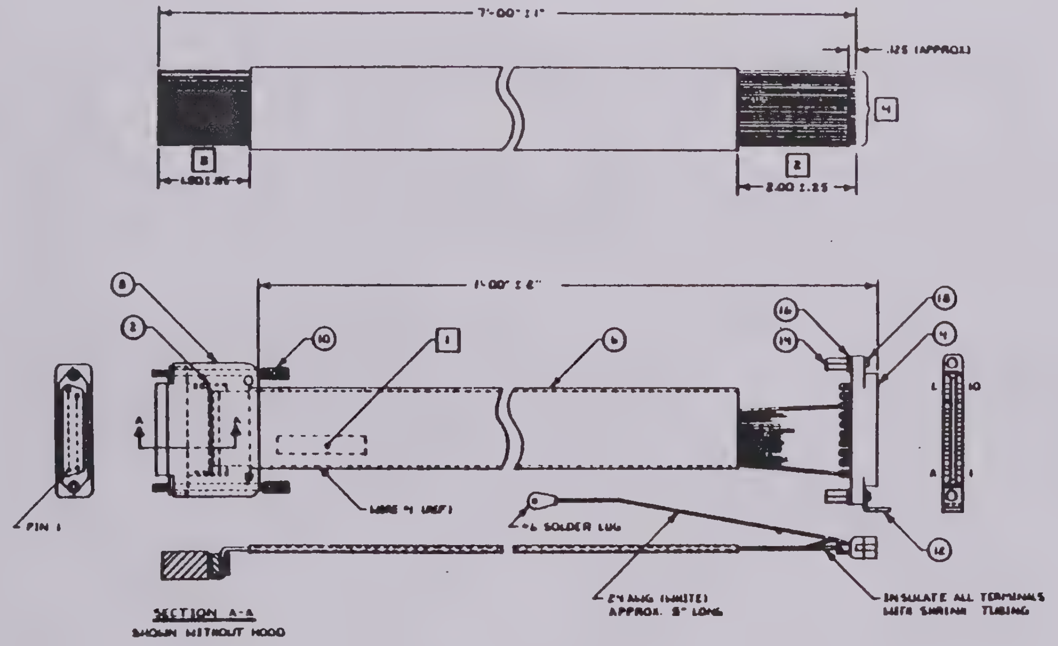


J1
30 GA KYNAR (2)
PC BOARD
SOLDER TO
FINGERS
KEY BOARD
(MAKE FROM 1762-2671)
GenRad
KEYBOARD MODIFIED
D
25.11-3004-10
2511

REV	DESCRIPTION	DATE	APPROVED
1	INITIAL RELEASE		
2	RESTRICTED RELEASE - RE DRAWN		
2A	PRE-RELEASE	[illegible]	
2B	RELEASED		
3	TRACKING PER ECN 2698	[illegible]	

NOTES:

1. MARK P/N & REV USING .12 HIGH CHARACTERS, COLOR, WHITE EPOXY INK, LOCATE APPROX WHERE SHOWN
2. SEPERATE ALL WIRES
3. DO NOT SEPERATE WIRES
4. CUT BACK WIRES NOT USED AND SHRINK SLEEVE ENDS TO INSULATE.



DRN	C. ZIEGLER
USED ON	2510
MATERIAL	SEE L/M 2510-2002-1L

GenRad

CABLE ASSY,
EXTERNAL KEYBOARD

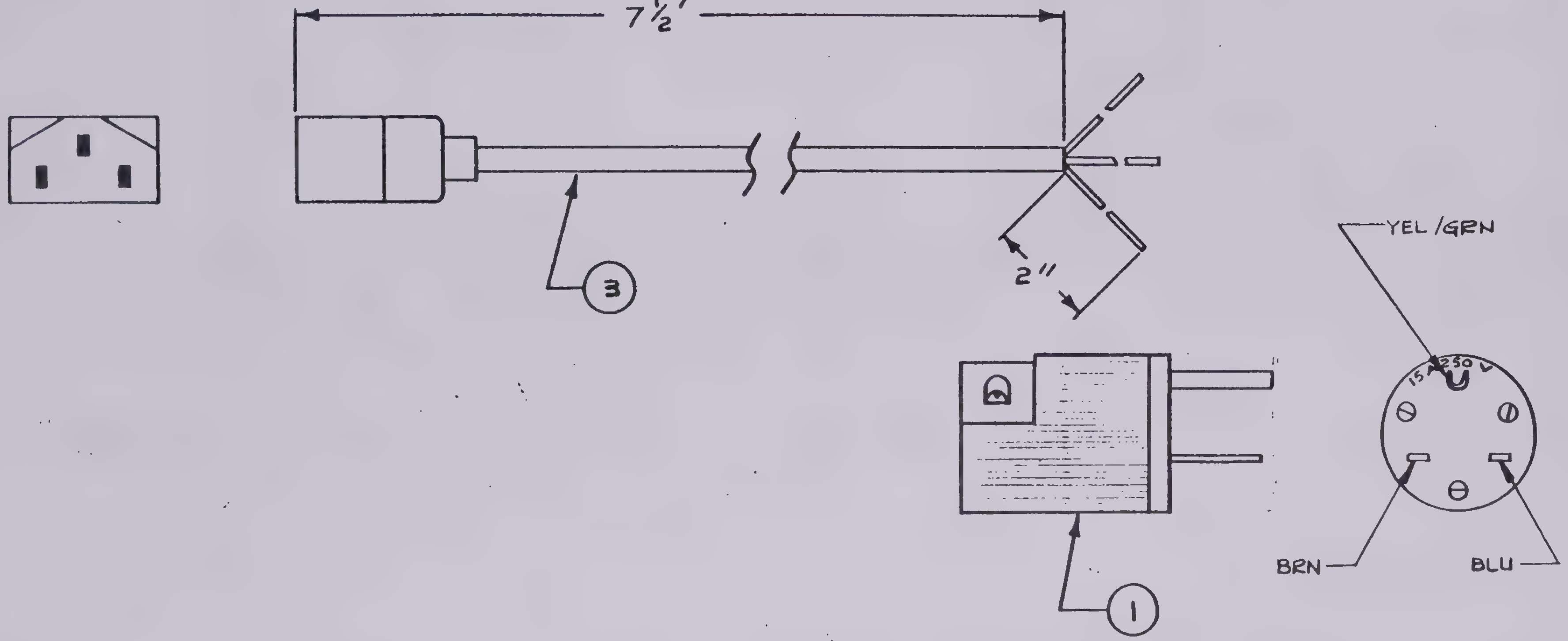
SIZE	DWG NO.	REV
D	2510-2002-1D	[illegible]

SCALE 1/1

1	RELEASE PER ECN 2485	20 SEP 81	A. VORA
2	REVISED PER ECN 2527	24 NOV 81	A. VORA

NOTES:

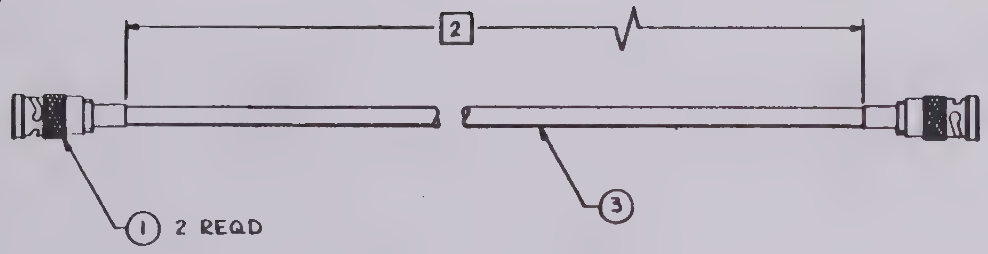
1. CUT OFF EXISTING PLUG, THEN CUT BACK INSULATION LEAVING 2 INCHES OF EACH WIRE. STRIP ENDS AS NEEDED, AND INSTALL PLUG ON CORD.
2. BAG AND TAG WITH PART NO. AND REV.



DWN	[signature]	7-8-81	TITLE CORD, POWER, 220V — GenRad
CHK			DRAWING NO 2510-2021-1D
APPR			REV 2 — SHEET 1 OF 1

DI-LINE REORDER NO. 1075

SYM	DESCRIPTION		APPROVED
1	SUPERSEDES P/N 2331-2039 / RELEASE	5-11-76	JWC
2	REVISED PER ECN 2334A	5-16-80	A. VORA



NOTES:

1. MARKING: BAG / TAG PART NO. 1923-2140-XX AND REV BEFORE STOCKING.

2

PART NO.	LENGTH
1923-2140	5 FT ± 2 IN
1923-2140-01	7 FT ± 2 IN
-02	
-03	
-04	
1923-2140-05	5 FT ± 2 IN

SYM	PART NO.	QTY REQD	SIZE, DESCRIPTION & SPECIFICATION

LIST OF MATERIALS OR PARTS LIST

DO NOT SCALE DRAWING
UNLESS OTHERWISE NOTED DIMENSIONS ARE IN INCHES TOLERANCES ON FRACTIONS ±1/32 DECIMALS ±.010 ANGLES ±0°30'
REMOVE ALL BURRS AND SHARP EDGES
RELEASE STATUS

MATERIAL: SEE 1923-2140-IL

DWN: 5/10/76 — CHK'D: 5-18-76 — ENG — APPROVED — APPROVED

TIME/DATA CORPORATION, PALO ALTO, CALIFORNIA

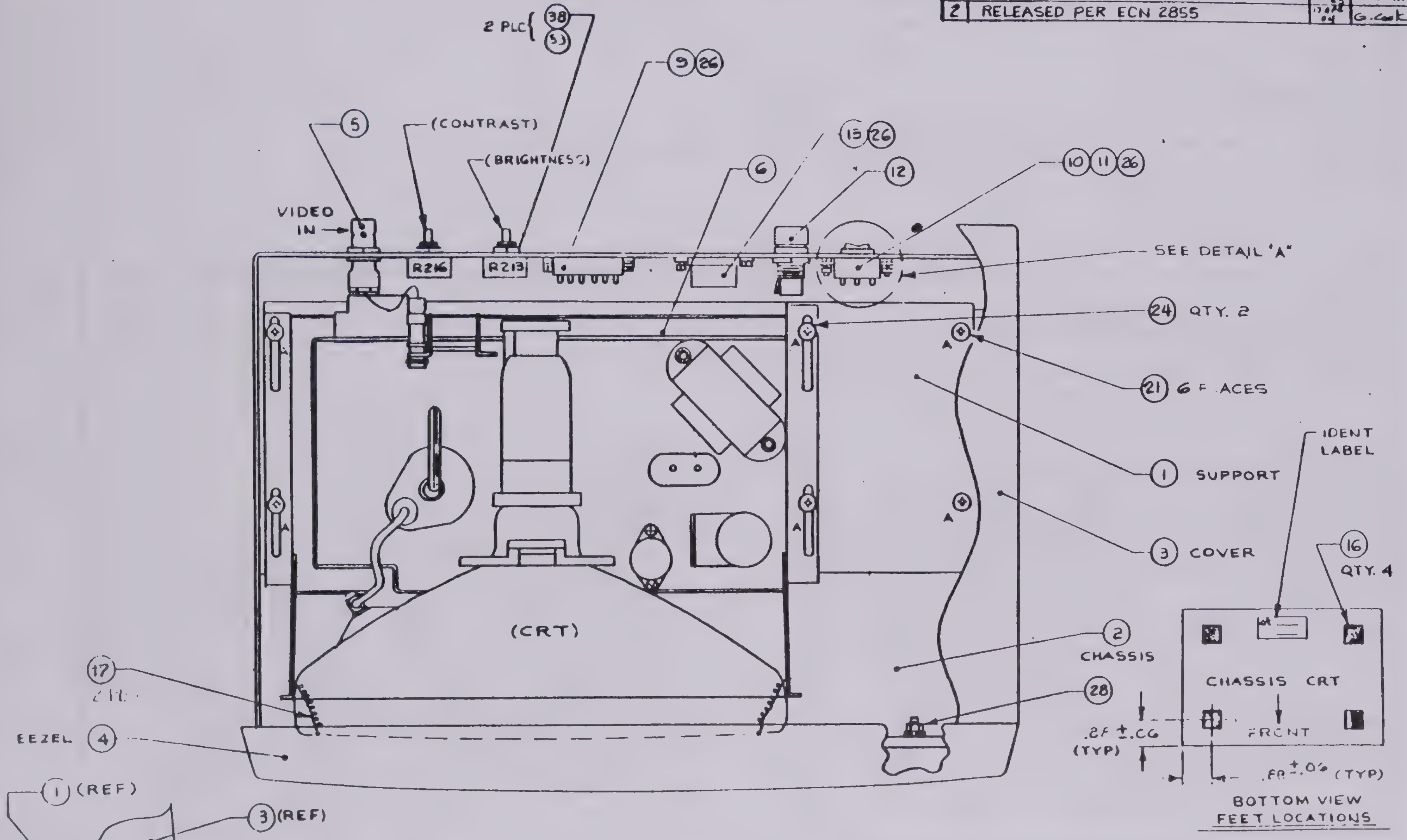
TITLE: CABLE ASSEMBLY, COAX (PLUG / PLUG)

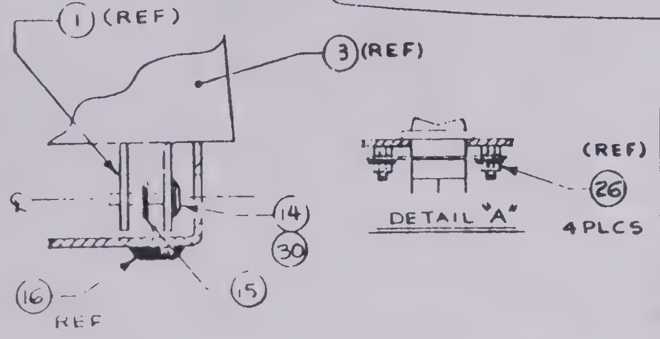
CODE IDENT NO. — SIZE: C — 1923-2140-ID — REV: 2

SCALE 1/1 — SHEET 1 OF 1

NOTES:

SYM	REVISIONS DESCRIPTION	DATE	APP
1	PRE-RELEASE		A. VORA
2	RELEASED PER ECN 2855		G. Cook





2511-3007	
2511-3006	2511
NEXT ASSEMBLY	USED ON
APPLICATION	

DO NOT SCALE DRAWING
UNLESS OTHERWISE NOTED DIMENSIONS ARE IN INCHES
REMOVE ALL BURRS AND SHARP EDGES

MATERIAL: SEE 2511-2022-1L

DWN	C. Kirstein	
CHK	G. Cook	1.27
ENG	K. Band	1.28.83

APPROVED
APPROVED

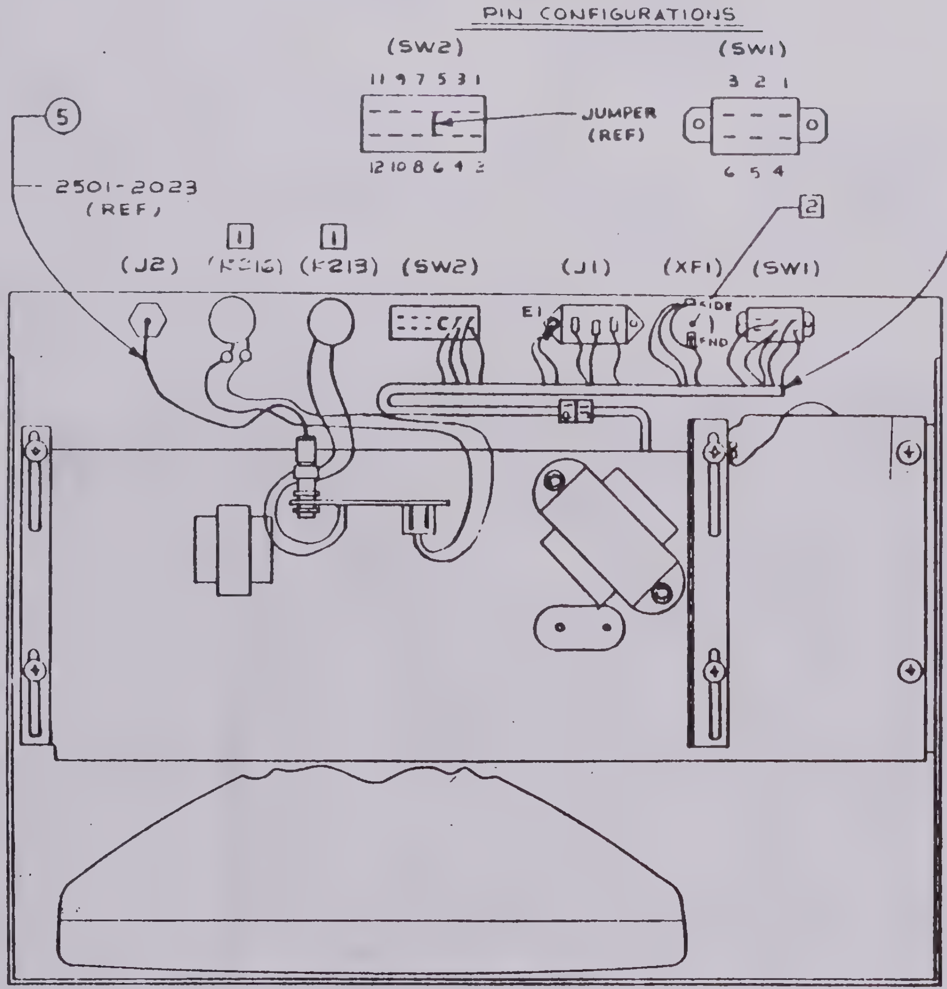
GenRad — Time/Data Division

TITLE: P39 PHOSPHER CRT BASIC ASSY. (12")

CODE IDENT NO	SIZE		REV
	C	2511-2022-1D	2

SCALE —— SHEET 1 OF 2

SYM	DESCRIPTION	DATE	APPROVED
—	SEE SHT. 1 FOR REVISIONS		A VORA



WIRE NO.	FROM	TO	FUNCTION	SIZE	COLOR	REMARKS
1	SW1-1	J1-L	LINE (HOT)	16	BLK	
2	SW1-4	J1-N	NEUT		WHT	
3	SW1-2	XF1-END	LINE (HOT)		BLK	
4	SW1-5	SW2-1	NEUT		WHT	
5	SW1-5	P1-6	NEUT		YEL	2501-2028 HARNESS
6	XF1-SIDE	SW2-2	LINE (FUSED)		BLK	
7	XF1-SIDE	P1-3	" "		WHT/GRY	
8	E1-GRD	J1-G	CHSS GRD		GRN	
9	E1-GRD	P1-5	" "		GRN	
10	SW2-4	P1-1			WHT/YEL	
11	SW2-3	P1-4		16	BLK	
12	SW2-5	SW2-6	JUMPER	20	BUS	

NOTES:

1. R213 & R216 ARE PART OF PURCHASE CRT

   INSTALL (R213) IN HOLE LABELED "BRIGHT"
   INSTALL (R216) IN HOLE LABELED "CONTRAST".

2. ADD SHRINK TUBING TO ALL CONNECTIONS (XF1).

DO NOT SCALE DRAWING

UNLESS OTHERWISE NOTED DIMENSIONS ARE IN INCHES TOLERANCES ON DECIMALS ANGLES REMOVE ALL BURRS AND SHARP EDGES

MATERIAL

NEXT ASSEMBLY | USED ON

APPLICATION

DWN | CHK | ENG | APPROVED | APPROVED

GenRad

TITLE

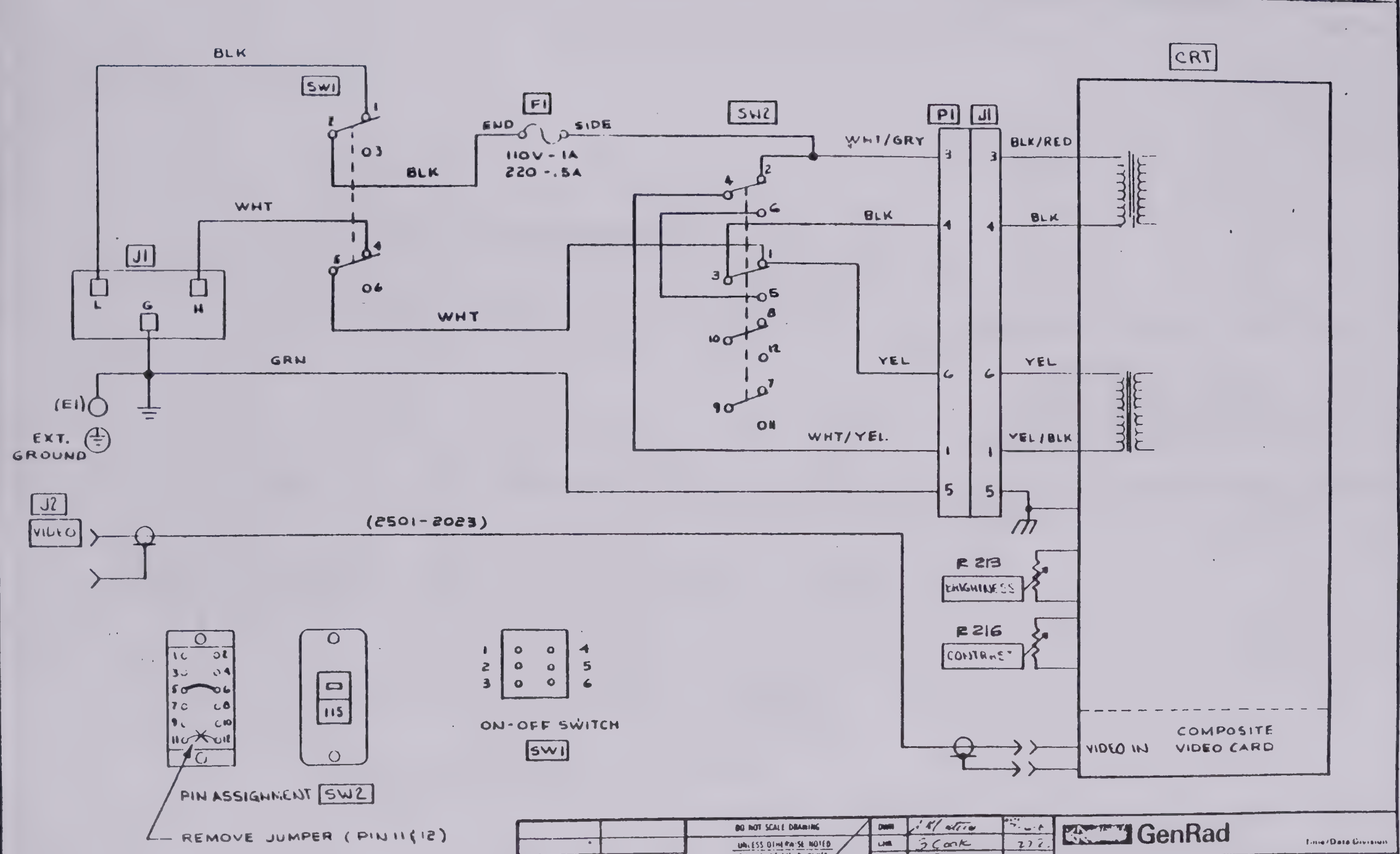
P39 PHOSPHER CRT BASIC ASSY. (12")

SIZE C | 2511-2022-1D | 2

SCALE —— | SHT 2 OF 2

NOTES:

SYM	DESCRIPTION		APPROVED
1	PRE-RELEASE		A. Vorn
2	RELEASED PER ECN 2855		



DO NOT SCALE DRAWING

UNLESS OTHERWISE NOTED

GenRad

TITLE: AC POWER WIRING CRT MONITOR (12")

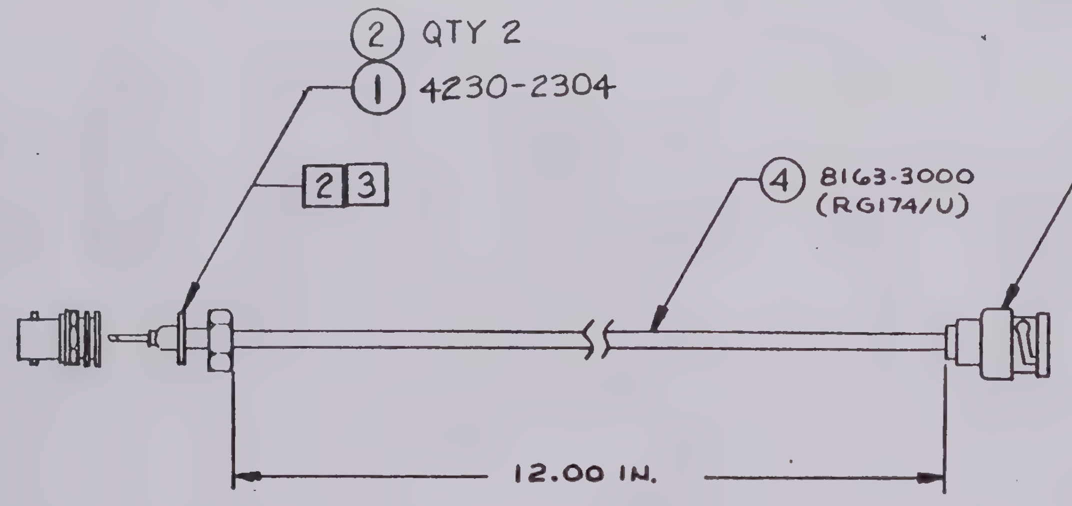
NEXT ASSEMBLY	USED ON
2511-3007	
2511-3006	2511

APPLICATION

CODE IDENT NO	SIZE		REV
	C	2511-2022-20	2

SHEET 1 OF 1

1	INITIAL RELEASE	4-3-79	[signature]
2	REVISED PER ECN 2874	7-13-84	G.Cook



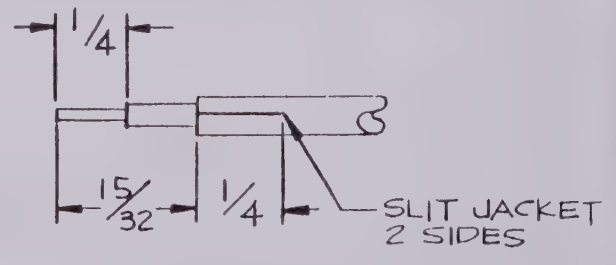
WIRING DIAGRAM

NOTES:

1. MARK & TAG WITH PART NO. & REV NC

2 PANEL MOUNT PORTION OF ITEM 1 MAY BE SEPARATED FROM THIS ASSY TO FACILITATE PRODUCTIO METHODS.

3 CABLE STRIP DETAILS:



(SEE 2501-2023-1L)

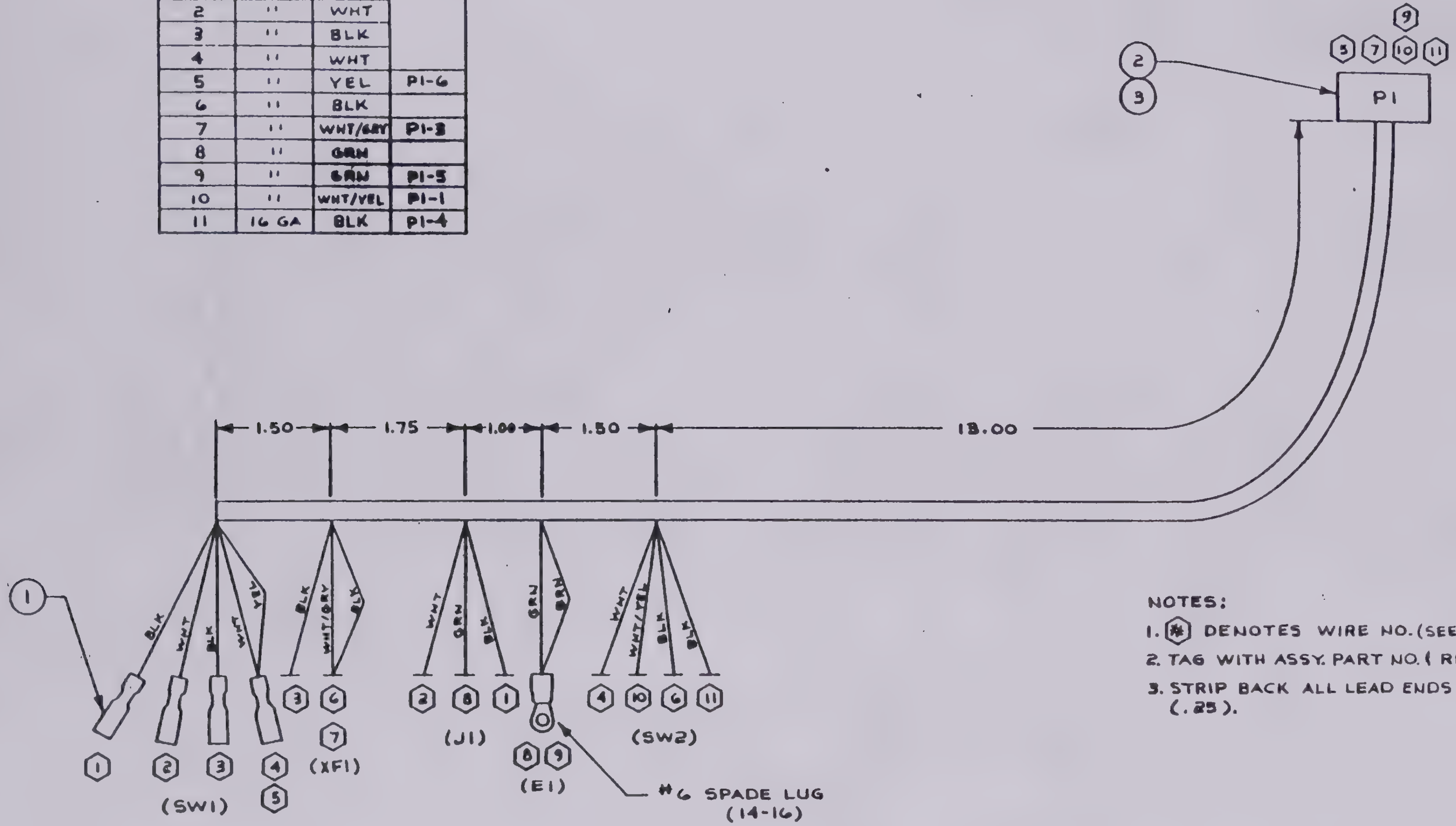
	2505, 2506	DWN [signature]	4-3-79	TITLE CABLE ASSY. BNC / VIDEO	GenRad
2501-3000	2502, 2503	CHK [signature]	4-5-79		
NEXT ASSY	USED ON	APPR G Cook	7-18-84	DRAWING NO 2501-2023-1D	REV 2 / SHEET 1 OF 1
APPLICATION					

NOTES:

SYM	DESCRIPTION		APPROVED
1	INITIAL RELEASE / ECN 2197	7-2-79	[illegible]
1A	EDITORIAL ADD (P1) CONNECTIONS	7-11-79	[illegible]

WIRE LIST

WIRE NO.	SIZE	COLOR	CONN(P1)
1	16 GA	BLK	
2	"	WHT	
3	"	BLK	
4	"	WHT	
5	"	YEL	P1-6
6	"	BLK	
7	"	WHT/GRY	P1-3
8	"	GRN	
9	"	GRN	P1-5
10	"	WHT/YEL	P1-1
11	16 GA	BLK	P1-4



NOTES:

1. (#) DENOTES WIRE NO. (SEE WIRE LIST)
2. TAG WITH ASSY. PART NO. & REV.
3. STRIP BACK ALL LEAD ENDS APPROX. (.25).

2501-3000	2502,3,4,5
NEXT ASSEMBLY	USED ON
APPLICATION	

DO NOT SCALE DRAWING

UNLESS OTHERWISE NOTED DIMENSIONS ARE IN INCHES TOLERANCES ON DECIMALS .XX ± .03 .XXX ± .010 ANGLES ±0°30' REMOVE ALL BURRS AND SHARP EDGES

MATERIAL: SEE 2501-2028-1L

DRN: L. Montiero 7-2-79

CHK: J. [illegible] 7-2-79

ENG:

APPROVED

APPROVED

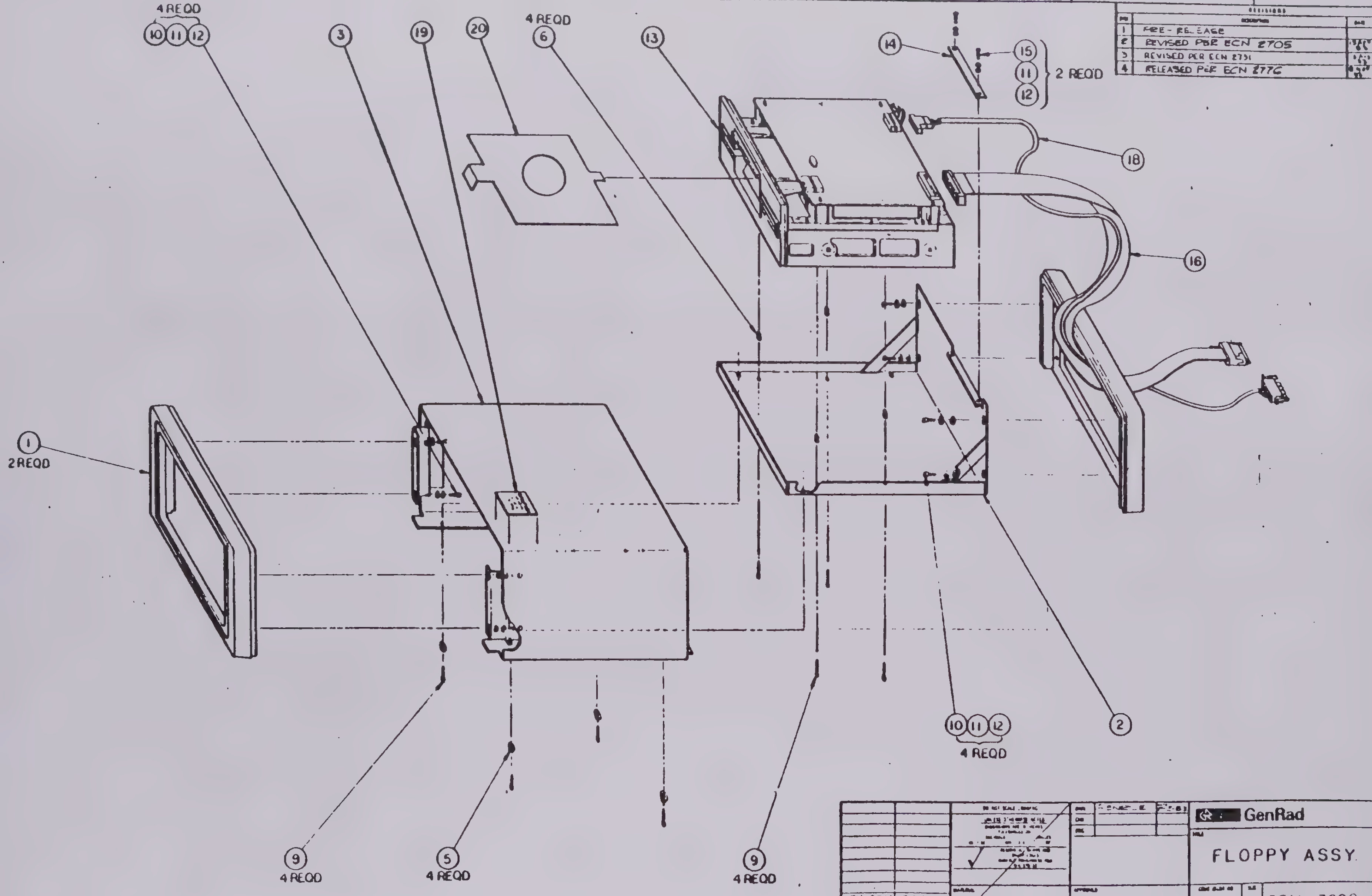
GenRad — Time/Data Division

TITLE: HARNESS, CRT

CODE IDENT NO | SIZE C | 2501-2028-1D | REV 1A

SCALE 1/1 | SHEET 1 OF 1

	REVISIONS		
1	PRE-RELEASE		
2	REVISED PER ECN 2705		A. VORA
3	REVISED PER ECN 2731		A. VORA
4	RELEASED PER ECN 2776		A. VORA



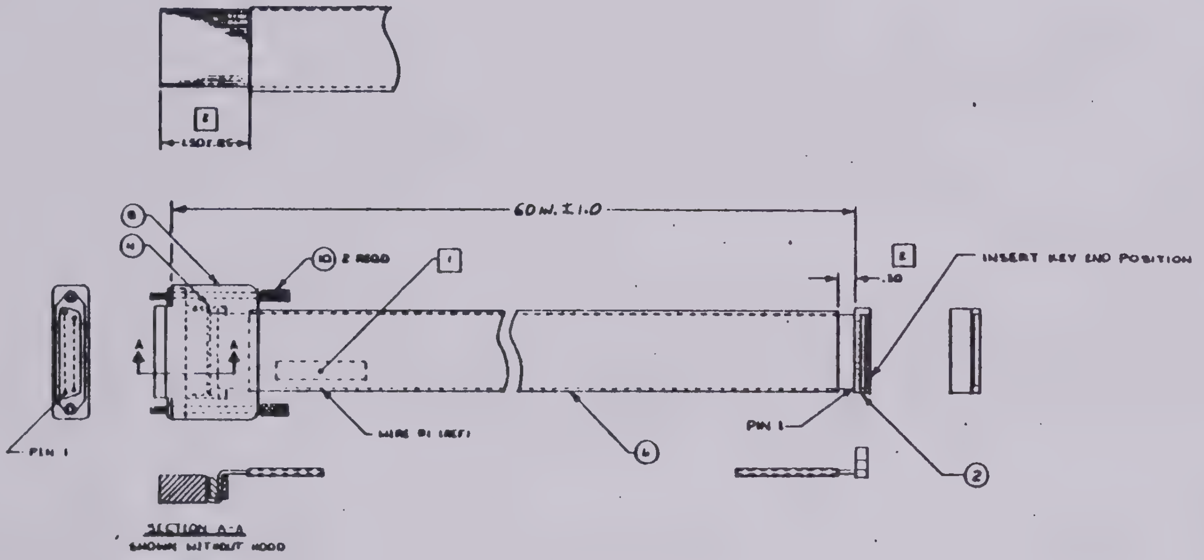
GenRad

FLOPPY ASSY

D 2511-3002-10 4

2511-3773 2511

LTR	DESCRIPTION	DATE	APPROVED
1	PRE-RELEASE		
2	TRACKING PER ECN 2292		
3	REVISED PER ECN 2745		
4	RELEASED PER ECN 2775		



[1] MARK P/N & REV USING 1/2 HIGH CHARACTERS, COLOR, WHITE EPOXY INK, LOCATE APPROX. WHERE SHOWN

[2] STRIP BACK JACKET AS INDICATED.

GenRad

CABLE ASSY,
1ST MINI FLOPPY SIGNAL

SEE L/M 2511-2003-1L

2511-3002 | 2511

C. ZIEGLER

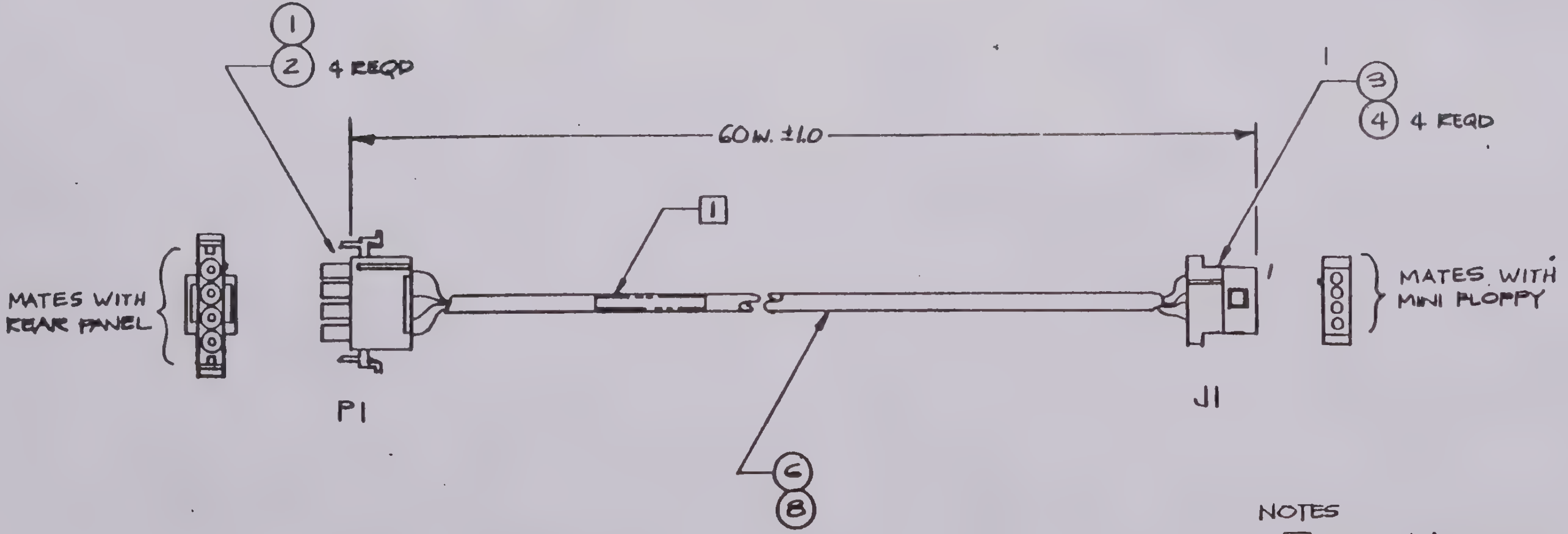
D | 2511-2003-1D

SCALE 1/1

NOTES:

REVISIONS

SYM	DESCRIPTION	DATE	APPROVED
1	PRE-RELEASE	[illegible] 83	A VORA
2	RELEASED PER ECN 2775	16 OCT 83	A. VORA



NOTES

1. MARK P/N & REV USING .12 HIGH CHARACTERS, COLOR, WHITE EPOXY INK, LOCATE APPROX. WHERE SHOWN.

2511-3011	2511	DO NOT SCALE DRAWING. UNLESS OTHERWISE NOTED DIMENSIONS ARE IN INCHES	DWN GENRILE 1-13-83	GenRad Time/Data Division
2511-3002	2511	MATERIAL: SEE LN-2511-2004-1L	CHK S.Cmk 1.27.83	TITLE: CABLE ASSY, DISK POWER
NEXT ASSEMBLY	USED ON		ENG K Bro 1.28.83	SIZE C — 2511-2004-1D — REV 2
APPLICATION			APPROVED	SCALE 1/1 — SHEET 1 OF 1

GenRad

DR	L. WITZEL	10/10/83			DRAWING NO 2511-2004-4D
CHK					SHEET 1 OF 2
APPD					REV 2
APPD			2511		TITLE
APPD			USED ON	NEXT ASSY	WIRE LIST, DISK POWER CABLE ASSEMBLY

SYM	REVISION DESCRIPTION	DATE	APPD	SYM	REVISION DESCRIPTION	DATE	APPD
2	RELEASED PER ECN 2778	10/7/83	A.Yof				

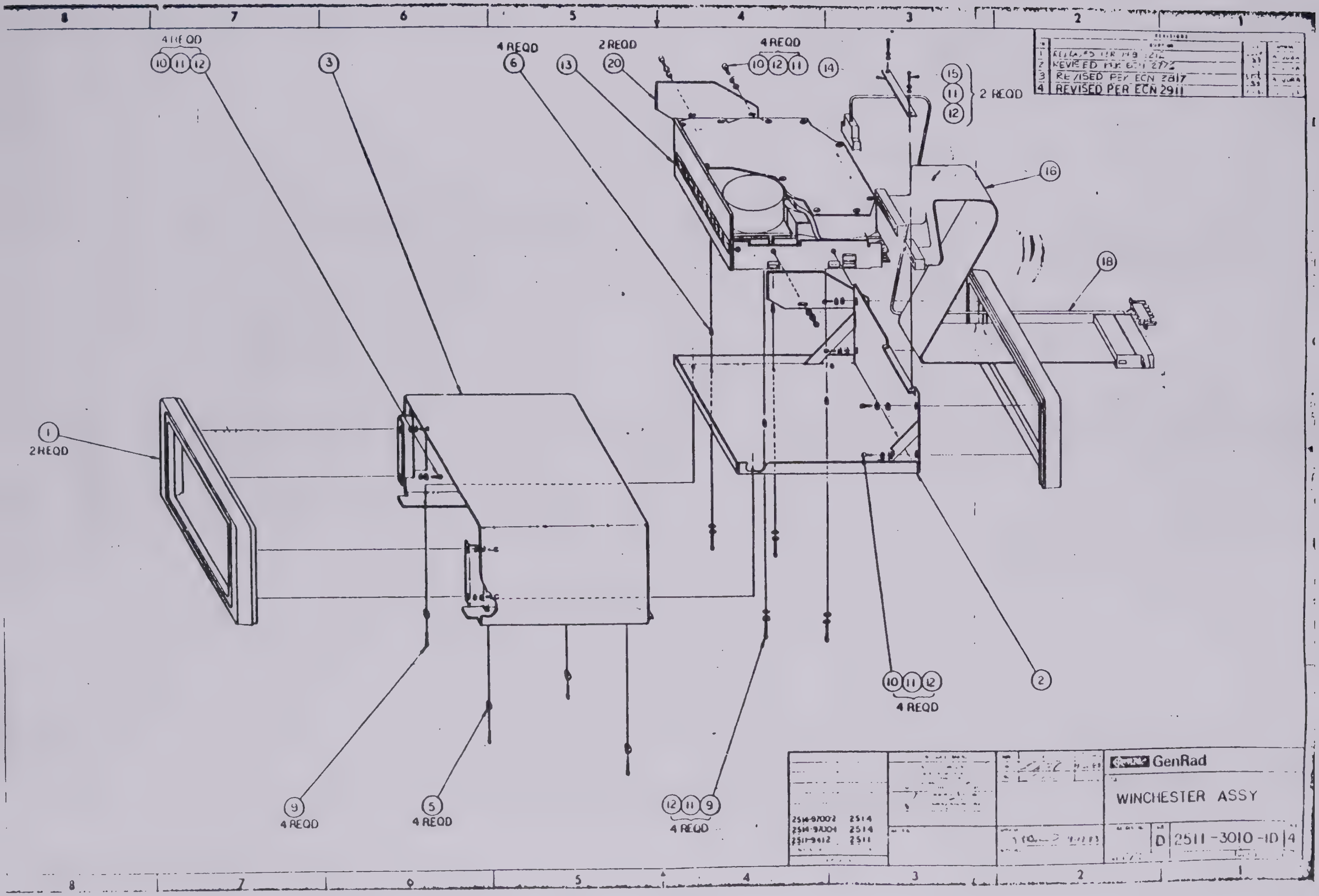
RECORD OF REVISION OF EACH SHEET

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
2	2																														

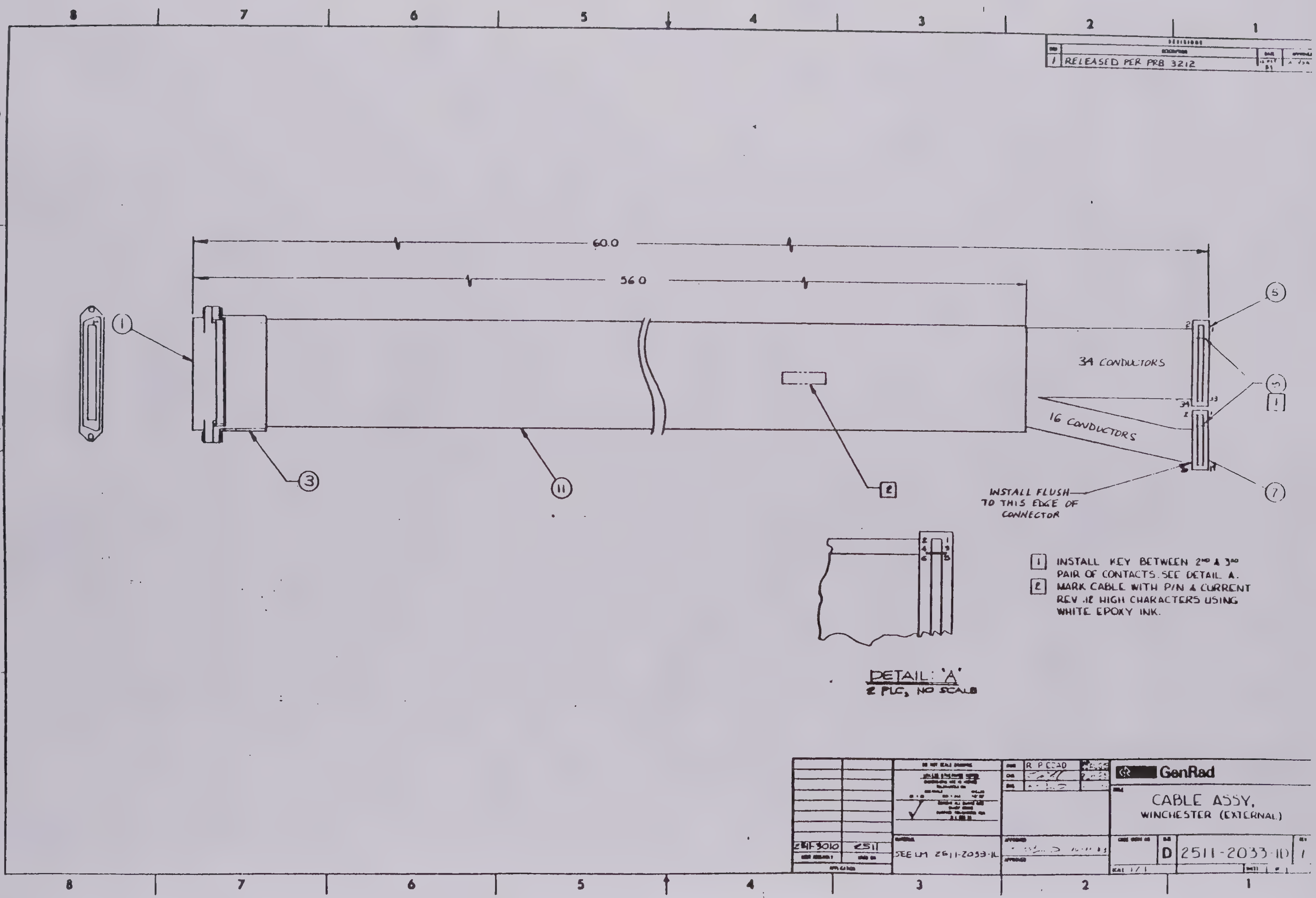
0000-0015 REV 1

GenRad	TITLE WIRE LIST, DISK POWER CABLE ASSEMBLY	sht 2 of 2
	DRAWING NO. 2511-2004-40	rev 2

wire	FROM		TO		CABLE WIRE LIST		
no.	CONN	PIN	CONN	PIN	FUNCTION	SIZE	COLOR
1	P1	1	J1	1	+12V	16	BLK
2	P1	2	J1	2	CHASSIS GND	16	BLK
3	P1	3	J1	3	"A" GND	16	BLK
4	P1	4	J1	4	+5V	16	BLK

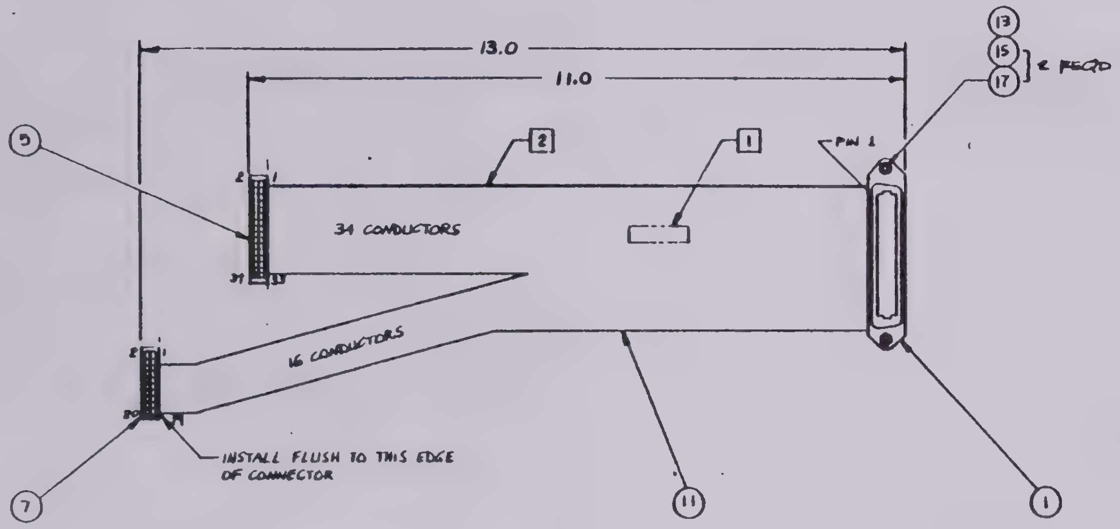


REVISED PER ECN 2817
REVISED PER ECN 2911
(1) 2 REQD
(10)(11)(12) 4 REQD
(3)
(6) 4 REQD
(13)
(20) 2 REQD
(10)(12)(11) 4 REQD
(14)
(15)(11)(12) 2 REQD
(16)
(18)
(2)
(10)(11)(12) 4 REQD
(9) 4 REQD
(5) 4 REQD
(12)(11)(9) 4 REQD
2514-97002 2514
2514-97004 2514
2511-9412 2511
GenRad
WINCHESTER ASSY
D 2511-3010-ID 4



RELEASED PER PRB 3212
60.0
56.0
34 CONDUCTORS
16 CONDUCTORS
INSTALL FLUSH TO THIS EDGE OF CONNECTOR
1 INSTALL KEY BETWEEN 2ND & 3RD PAIR OF CONTACTS. SEE DETAIL A.
2 MARK CABLE WITH P/N & CURRENT REV. .12 HIGH CHARACTERS USING WHITE EPOXY INK.
DETAIL: 'A'
2 PLC, NO SCALE
GenRad
CABLE ASSY, WINCHESTER (EXTERNAL)
D
2511-2033-10
2511-3010
2511
SEE LM 2511-2033-10

REV	DESCRIPTION
1	RELEASED PER PRB #3212



1. MARK CABLE WITH P/N & CURRENT REV .12 HIGH CHARACTERS USING BLACK EPOXY INK.
2. RED STRIPE DENOTES PIN 1.

GenRad

CABLE ASSY, WINCHESTER (INTERNAL)

R PIEDAD

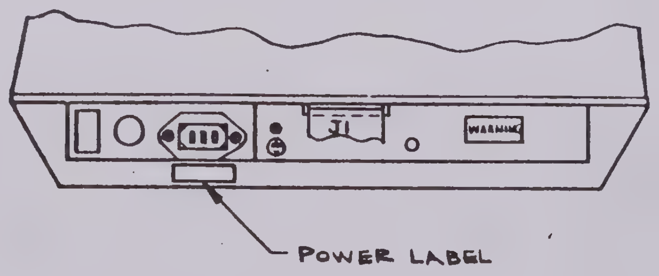
D 2511-2034

2511-2412 2511

SEE 2511-2034L

NOTES:

SYM	REVISIONS DESCRIPTION		APPROVED
1	RELEASE PER ECN 2567	6/21/82	
2	TRACKING PER ECN 2644	12 NOV 82	A VORA



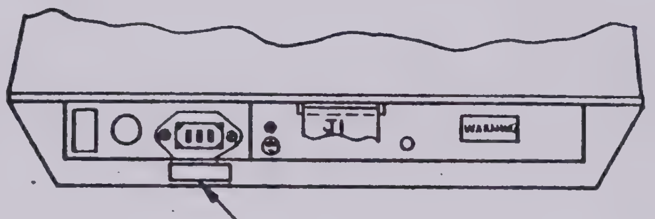
POWER SUPPLY
CONFIGURATION CHART

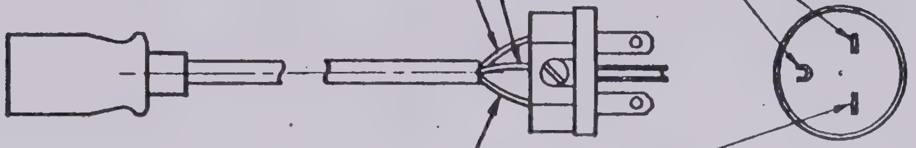
AFFECTED	60 Hz		50 Hz	
COMPONENT	120V	240V	120V	240V
AC FUSE F7	1A SLO-BLO	0.5A SLO-BLO	1A SLO-BLO	0.5A SLO-BLO
TRANSFORMER PLUG	P1		P2	
C5 LEADS	RED VIOLET/RED		RED VIOLET/RED	
TRANSFORMER TB1	TERM	TERM	TERM	TERM
VIO/BLK	1	1	4	4
VIO/BRN	1	2	5	5
BLK/WHT	3	2	3	2
BRN/WHT	3	3	3	3
GRN/BLK	4	4	1	1
GRN/BRN	5	5	1	2

FROM PRINTER MANUAL (PAGE 2-9)

DO NOT SCALE DRAWING	UNLESS OTHERWISE NOTED DIMENSIONS ARE IN INCHES; REMOVE ALL BURRS AND SHARP EDGES
DRWN	7 24 81
GenRad	Time/Data Division
TITLE	PRINTER, THERMAL, 110 V 60 HZ, 2510
SIZE	C
DWG NO	2510-9400-1-ID
REV	2
SCALE	1/2
SHEET	1 OF 1
MATERIAL	
APPROVED	
NEXT ASSEMBLY / USED ON	APPLICATION

SYM	REVISIONS DESCRIPTION		APPROVED
1	RELEASE PER ECN 2567		
2	TRACKING PER ECN 2641	2 NOV	A. VORA





CUT OFF 110V CONNECTOR AND REPLACE WITH
220 V CONNECTOR (P/N 4213-0077) AS SHOWN.

POWER SUPPLY CONFIGURATION CHART

AFFECTED	60 Hz		50 Hz	
COMPONENT	120V	240V	120V	240V
AC FUSE F7	1A SLO-BLO	0.5A SLO-BLO	1A SLO-BLO	0.5A SLO-BLO
TRANSFORMER PLUG	P1		P2	
C5 LEADS	RED VIOLET/RED		RED VIOLET/RED	
TRANSFORMER/ TB1	TERM.	TERM.	TERM.	TERM.
VIO/BLK	1	1	4	4
VIO/BRN	1	2	5	5
BLK/WHT	3	2	3	2
BRN/WHT	3	3	3	3
GRN/BLK	4	4	1	1
GRN/BRN	5	5	1	2

FROM PRINTER MANUAL (PAGE 2-9)

DO NOT SCALE DRAWING
UNLESS OTHERWISE NOTED

GenRad Time/Data Division

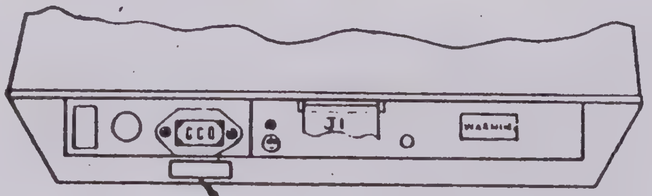
TITLE: PRINTER, THERMAL, 220V, 50HZ, 2510

SIZE C | 2510-9400-2-1D | REV 2

SCALE 1/2

NOTES.

SYM	REVISIONS DESCRIPTION		APPROVED
1	RELEASE PER ECN 8567	4/21/?	
2	TRACKING PER ECN 8641	12 NOV	A VORA



POWER SUPPLY
CONFIGURATION CHART

AFFECTED	60 HZ		50 HZ	
COMPONENT	120V	240V	120V	240V
AC FUSE F7	1A SLO-BLO	0.5A SLO-BLO	1A SLO-BLO	0.5A SLO-BLO
TRANSFORMER PLUG	P1		P2	
C5 LEADS	RED VIOLET/RED		RED VIOLET/RED	
TRANSFORMER TB1	TERM.	TERM	TERM	TERM
VIO/BLK	1	1	4	4
VIO/BRN	1	12	5	5
BLK/WHT	3	2	3	2
BRN/WHT	3	3	3	3
GRN/BLK	4	4	1	1
GRN/BRN	5	5	1	2

FROM PRINTER MANUAL (PAGE 2-9)

GenRad Time/Data Division

TITLE: PRINTER, THERMAL, 110 V, 50 HZ, 2510

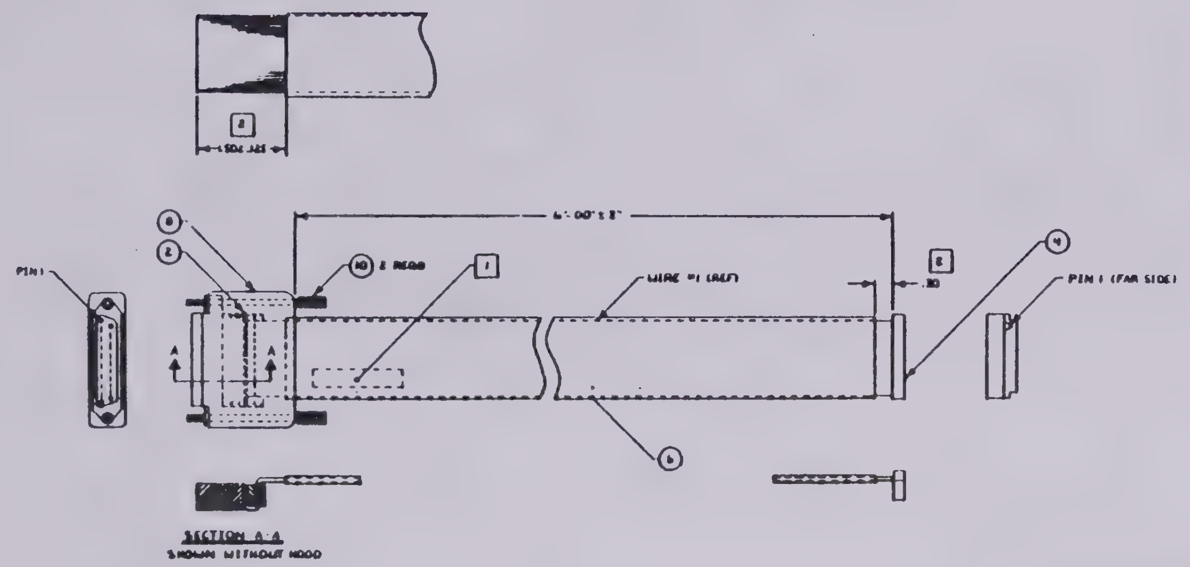
SIZE: C — 2510-9400-3-ID — REV 2

SCALE 1/2

REVISIONS			
1	INITIAL RELEASE		
2	RESTRICTED RELEASE – RE-DRAWN		
2A	PRE-RELEASE		
2B	RELEASED		
3	TRACKING PER ECN 26[illegible]		

NOTES.

1. MARK P/N & REV USING .12 HIGH CHARACTERS, COLOR, BLACK EPOXY INK, LOCATE APPROX. WHERE SHOWN
2. STRIP BACK JACKET AS INDICATED



GenRad

CABLE ASSY, EXTERNAL PRINTER

C. ZIEGLER

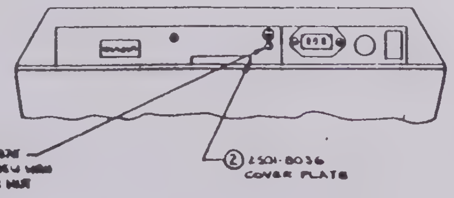
SEE L/M 2510-2004 L

2510

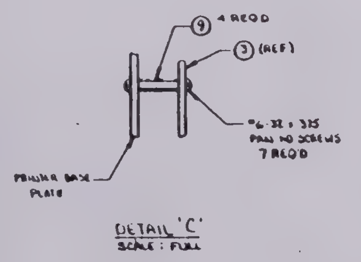
D 2510-2004-1D 3

SCALE 1/1

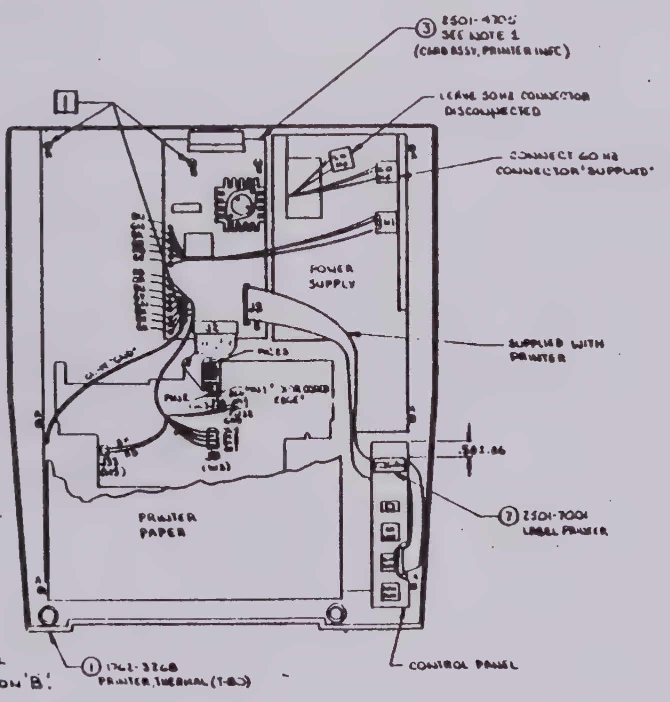
	REVISIONS		
1	RELEASED PER ECN 2405		
2	REVISED PER ECN 2824		
3	TRACKING PER ECN 2C88		



FOR INTERFACE WIRING DETAILS SEE 2501-2067-40



DETAIL 'C'
SCALE: FULL



NOTES:

1. A.) Remove six #8 screws marked 'A' on perimeter of base and lift dish assy. out of base.
   B.) Install three #6 screws (11) and three spacers (9) to location 'B' on printer assy.
   C.) Mount spacer (9) and one #6 screw (11) to interface bd. 2501-4705 (3) in location 'C' (spacer-solder side).
   D.) Mount interface board (3) to printer using three #6 screws (11) at location 'B'.
   E.) Reinstall printer assy. in base.

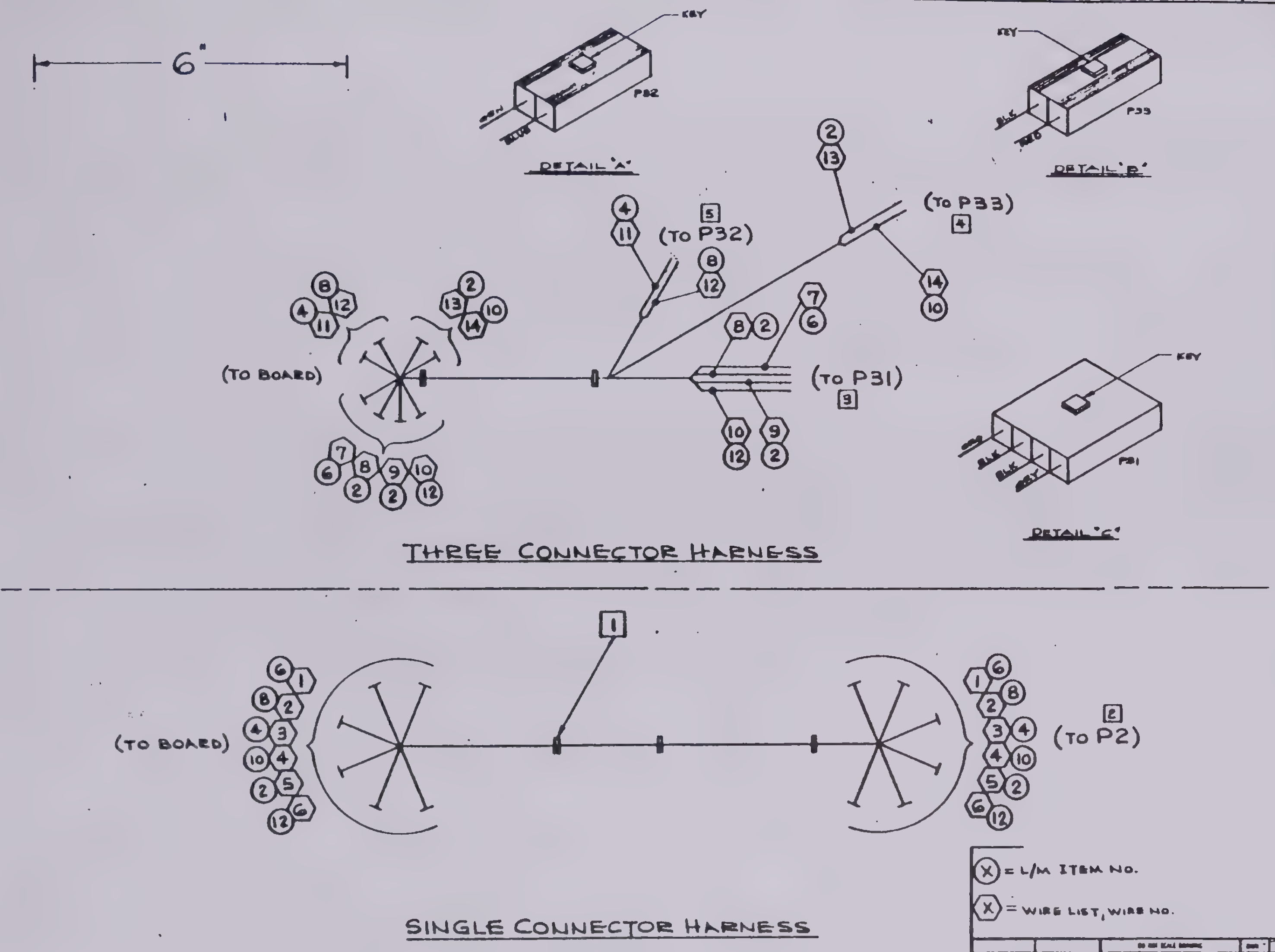
2506-9700	2506
2505-9700	2505
2503-9700	2503
2502-9700	2502

GenRad

BASIC PRINTER ASSEMBLY

D 2501-2066-10

REV	DESCRIPTION	DATE	APPROVED
1	RELEASE PER ECN 2485		
2	REVISED PER ECN 2524		



NOTES:

1. INSTALL CABLE TIES APPROX. WHERE SHOWN
2. STRIP ENDS .187", CRIMP TO TERMINALS SUPPLIED AND INSTALL IN P2 (SCKT PLUG-SEE 2501-20674U)
3. STRIP ENDS .187", CRIMP TO TERMINALS SUPPLIED AND INSTALL IN P31 (SEE DETAIL "C")
4. STRIP ENDS .187", CRIMP TO TERMINALS SUPPLIED AND INSTALL IN P33 (SEE DETAIL "B")
5. STRIP ENDS .187" CRIMP TO TERMINALS SUPPLIED AND INSTALL IN P32 (SEE DETAIL "A")

(X) = L/M ITEM NO.

⬡X = WIRE LIST, WIRE NO.

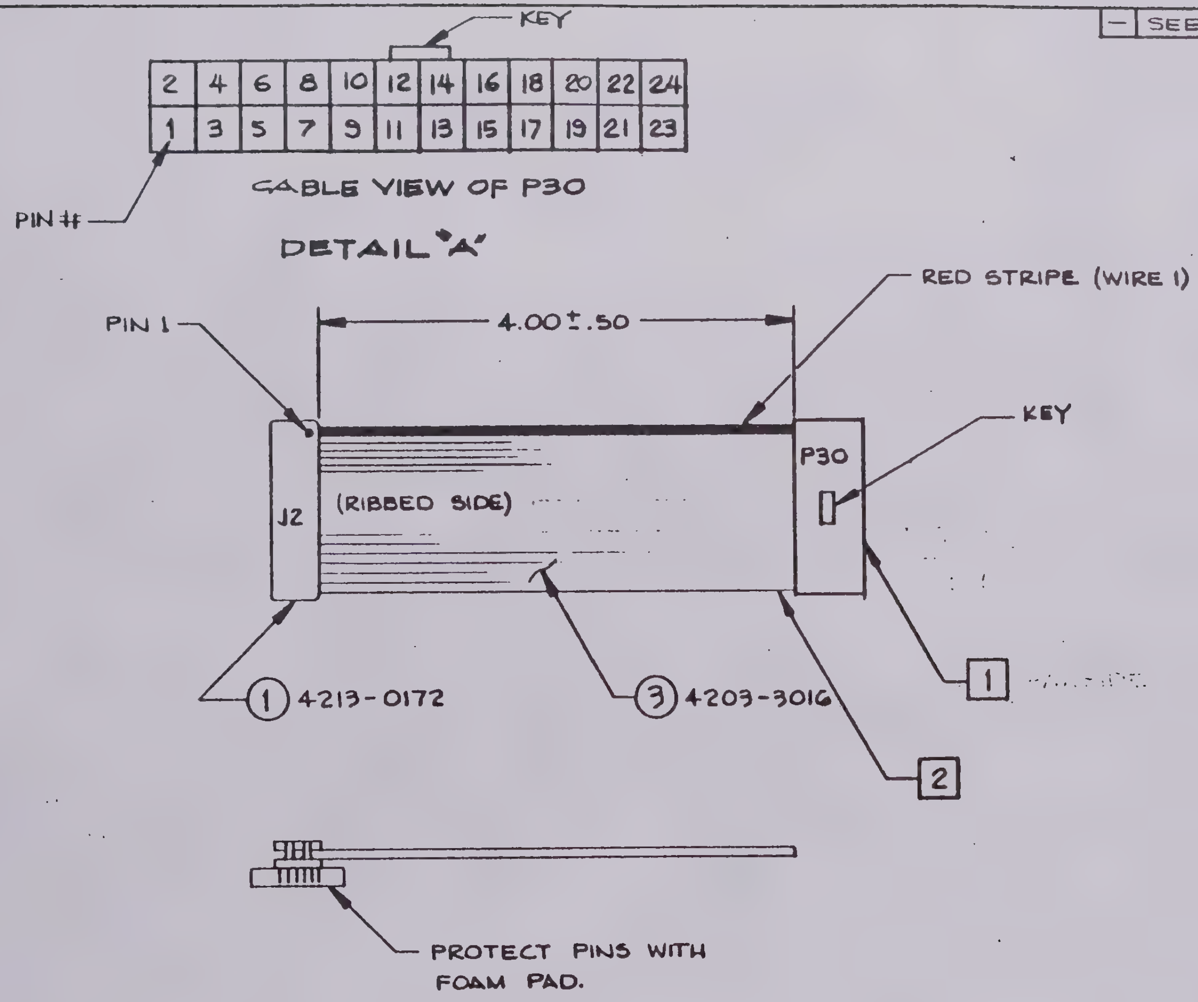
GenRad

HARNESS ASSY, PRINTER

D 2501-20671D 2

SCALE FULL

- | SEE SHT 1



NOTES:

1. SEPARATE WIRES .75" FROM END, STRIP ENDS .187", CRIMP TO TERMINALS SUPPLIED AND INSTALL IN P30 (SEE DETAIL A FOR WIRING INFO)
2. REMOVE WIRES 25 & 26, .75" FROM END OF CABLE

2501-4705	2501	DWN P. Phillipps	1-30-79	TITLE HARNESS ASSY, PRINTER	GenRad
NEXT ASSEMBLY	USED ON	CHK JH	1-30-79	DRAWING NO 2501-2067-1D	REV 2 / SHEET 2
APPLICATION		APPR			

GenRad

DR	G. ENRILE	DATE 8-25-81		
CHK				
APPD				
APPD				
APPD			USED ON	NEXT ASSY

DRAWING NO 2501-2067-4D

REV 2

SHEET 1 OF 3

TITLE WIRELIST, PRINTER

SYM	REVISION DESCRIPTION	DATE	APPD	SYM	REVISION DESCRIPTION	DATE	APPD
1	RELEASED PER ECN 2485	29SEP81	A. VORA				
2	REVISED PER ECN 2524						

RECORD OF REVISION OF EACH SHEET

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
1	1	-																													
2	2	2																													

0000-0015 REV 1

GenRad

TITLE WIRE LIST, PRINTER

SHT 2 OF 3

DRAWING NO. 2501-2067-4D

REV 2

CABLE TITLE HARNESS ASSY, PRINTER

CABLE DRAWING NO.

WIRE NO.	FROM CONN	FROM PIN	TO CONN	TO PIN	CABLE WIRE LIST FUNCTION	LENGTH	SIZE	COLOR
1	P2	1	BOARD	+20	+20V	12"	16 GA	ORN
2	P2	2		+9	+9V	12"		BLU
3	P2	3		G	GND	12"		GRN
4	P2	6		+5P	+5P	12"		RED
5	P2	8		G	GND	12"		BLK
6	P2	9		-20	-20V	12"		GRY
7	P31	—		+20	+20V	9"		ORN
8	P31	—		G	GND	9"		BLK
9	P31	—		G	GND	9"		BLK
10	P31	—		-20	-20V	9"		GRY
11	P32	—		G	GND	8"		GRN
12	P32	—		+5L	+5L	8"		BLU
13	P33	—		G	GND	12"		BLK
14	P33	—	BOARD	+5P	+5P	12"	16GA	RED
15	J2	1	P30	1	MANUAL HEAD LIFT	5"	28 GA	GRY
16	J2	2	P30	2	LINE FEED INCREMENT	5"	28 GA	GRY
17	J2	3	P30	3	MANUAL LINE FEED	5"	28 GA	GRY
18	J2	4	P30	4	RESISTOR STROBE (06)	5"	28 GA	GRY
19	J2	5	P30	5	PRINT HEAD LIFT	5"	28 GA	GRY
20	J2	6	P30	6	RESISTOR STROBE (00)	5"	28 GA	GRY
21	J2	7	P30	7	ADVANCE HEAD CARRIAGE	5"	28 GA	GRY
22	J2	8	P30	8	RESISTOR STROBE (05)	5"	28 GA	GRY
23	J2	9	P30	9	GND	5"	28 GA	GRY
24	J2	10	P30	10	RESISTOR STROBE (04)	5"	28 GA	GRY
25	J2	11	P30	11	PRINT UNIT PRESENT	5"	28 GA	GRY
26	J2	12	P30	12	RESISTOR STROBE (01)	5"	28 GA	GRY
27	J2	13	P30	13	START CHAR. SYNC	5"	28 GA	GRY

GenRad

TITLE: WIRE LIST, PRINTER

SHT 3 OF 3

DRAWING NO. 2501-2067-4D

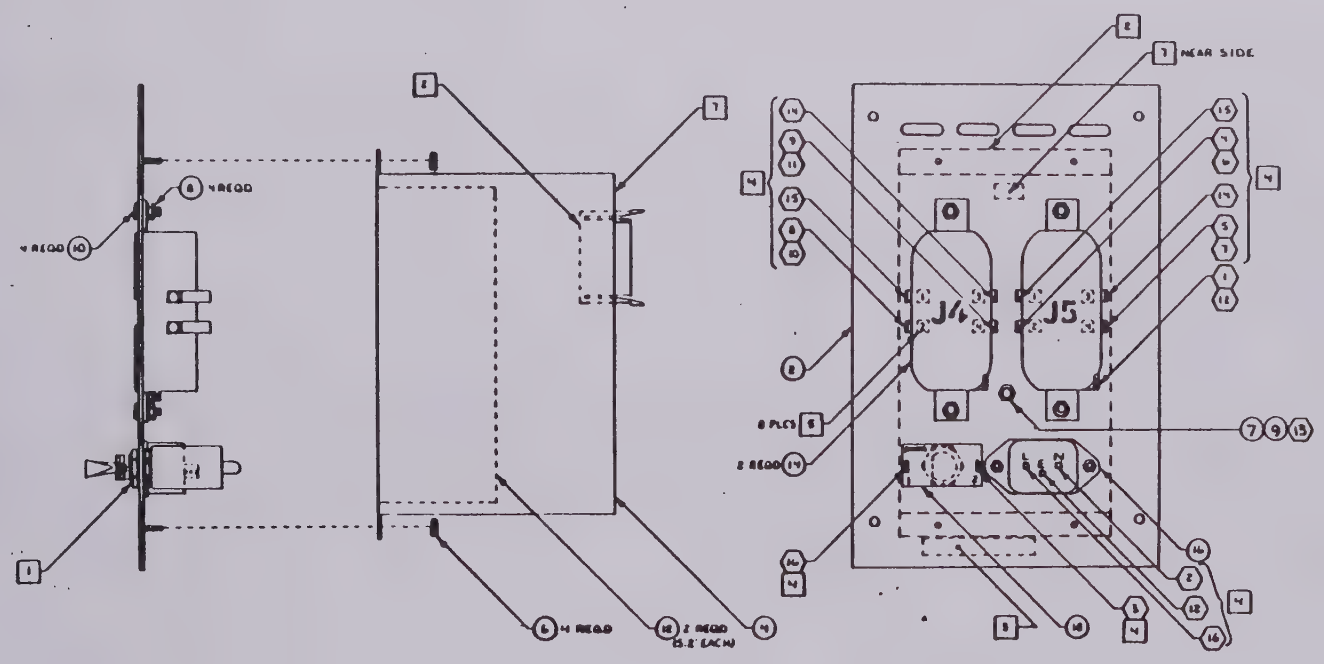
REV 2

CABLE TITLE: HARNESS ASSY, PRINTER

CABLE DRAWING NO.

WIRE NO.	FROM CONN	FROM PIN	TO CONN	TO PIN	FUNCTION	LENGTH	SIZE	COLOR
28	J2	14	P30	14	RESISTOR STROBE (02)	5"	28GA	GRY
29	J2	15	P30	15	PRINT COLUMN SYNC	5"	28GA	GRY
30	J2	16	P30	16	RESISTOR STROBE (03)	5"	28GA	GRY
31	J2	17	P30	17	PRINT LINE STROBE	5"	28GA	GRY
32	J2	18	P30	18	PRINT CONTRAST CODE Ø	5"	28GA	GRY
33	J2	19	P30	19	GND	5"	28GA	GRY
34	J2	20	P30	20	PRINT CONTRAST CODE 1	5"	28GA	GRY
35	J2	21	P30	21	—	5"	28GA	GRY
36	J2	22	P30	22	PRINT CONTRAST CODE 2	5"	28GA	GRY
37	J2	23	P30	23	—	5"	28GA	GRY
38	J2	24	P30	24	PRINT CONTRAST CODE 3	5"	28GA	GRY
39	J2	25	N/C					
40	J2	26	N/C					

LTR	DESCRIPTION	DATE	APPROVED
1	RELEASE PER ECN 2608		



NOTES:

1. DISCARD "ON"-"OFF" DESIGNATOR PLATE.
2. COVER & WIRING NOT SHOWN FOR CLARITY.
3. MARK P/N & REV USING .12 HIGH CHARACTERS, COLOR, BLACK EPOXY INK, LOCATE APPROX WHERE SHOWN.
4. INSTALL SHRINK TUBING ON SPADE LUGS & SOLDER TERMINALS.
5. MARK OUTLETS INPUT/OUTPUT TERMINALS WITH THEIR APPROPRIATE DESIGNATORS, USING .8 HIGH CHARACTERS, COLOR, WHITE EPOXY INK, APPROX WHERE SHOWN.
6. MARK OUTLETS WITH THEIR APPROPRIATE DESIGNATORS (J4 OR J5), USING .35 HIGH CHARACTERS, COLOR, BLACK EPOXY INK, APPROX. WERE SHOWN.
7. MARK COVER WITH DESIGNATOR "J1", USING .12 HIGH CHARACTERS, COLOR, BLACK EPOXY INK.

(X) - L/M ITEM NO

(X) - WIRE LIST WIRE NO

GenRad

POWER MODULE ASSY, 115V VCS

SEE LM 2511-2012-ML

2511

D 2511-2000-10 1

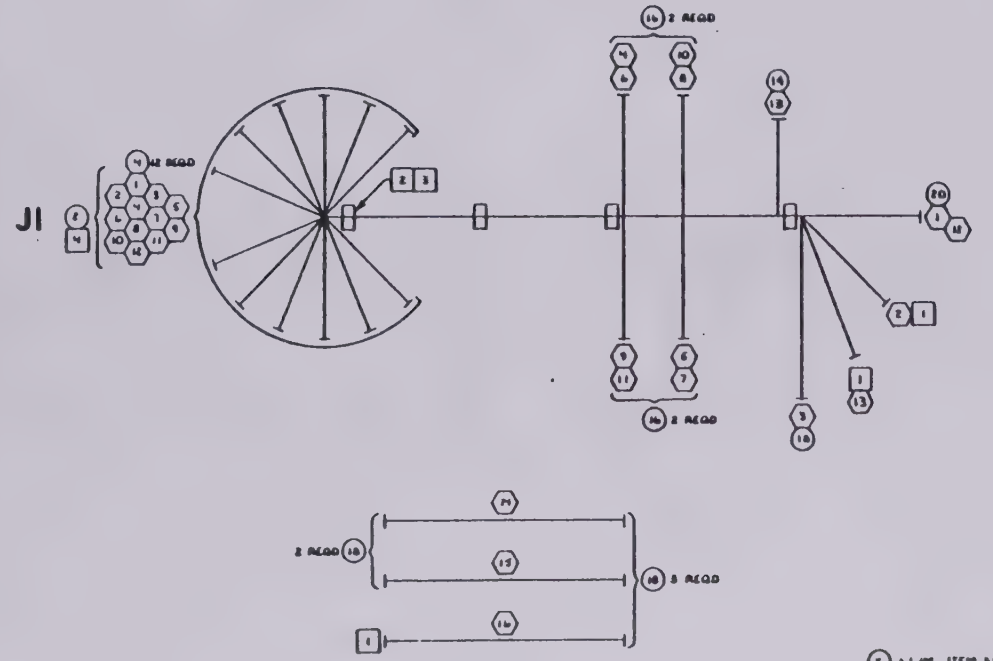
SCALE 1/1

C. ZIEGLER

REV	DESCRIPTION	DATE	APPROVED
1	INITIAL RELEASE		
1A	PBL - RELEASE		
2	REVISED PER ECN 2478 + RELEASE		
3	TRACKING PER ECN 2514		
4	TRACKING PER ECN 2618		

NOTES:

1. WIRES TO BE STRIPPED AS REQD AT TIME OF INSTALLATION IN PWR MODULE ASSY.
2. MARK CABLES WITH P/N & REV. APPROX WHERE SHOWN
3. INSTALL CABLE TIES APPROX WHERE SHOWN
4. MARK CONNECTOR WITH DESIGNATOR (J1) USING .25 HIGH CHARACTERS, COLOR, BLACK EPOXY INK.



(circle) = LM ITEM NO.

(hexagon) = WIRE LIST WIRE NO.

GenRad

CABLE ASSY, PWR MODULE, 115V (J1)

DRAWN C. ZIEGLER

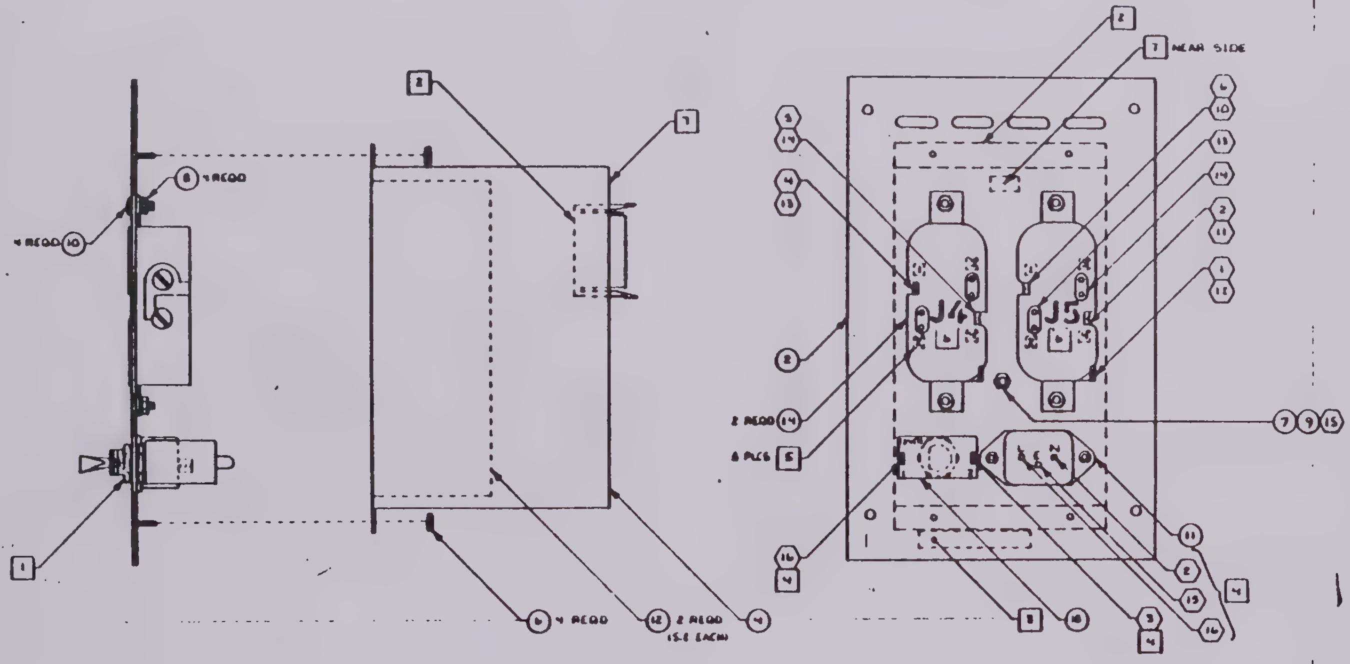
SEE LM 2510-2012-IL

NEXT ASSEMBLY 2510-2000 | USED ON 2510

SIZE D | 2510-2012 ID

SCALE 1/1

1	RELEASE PER ECN 2698		



NOTES:

1. DISCARD "ON - "OFF" DESIGNATOR PLATE.
2. COVER & WIRING NOT SHOWN FOR CLARITY.
3. MARK P/N & REV USING .12 HIGH CHARACTERS, COLOR, BLACK EPOXY INK, LOCATE APPROX WHERE SHOWN
4. INSTALL SHRINK TUBING ON SPADE LUGS & SOLDER TERMINALS.
5. MARK OUTLETS INPUT/OUTPUT TERMINALS WITH THEIR APPROPRIATE DESIGNATORS, USING .2 HIGH CHARACTERS, COLOR, WHITE EPOXY INK, APPROX WHERE SHOWN
6. MARK OUTLETS WITH THEIR APPROPRIATE DESIGNATORS (J4 OR J5), USING .35 HIGH CHARACTERS, COLOR, BLACK EPOXY INK, APPROX WHERE SHOWN.
7. MARK COVER WITH DESIGNATOR J1, USING .12 HIGH CHARACTERS, COLOR, BLACK EPOXY INK

(8) = L/M ITEM NO

(8) = WIRE LIST WIRE NO

GenRad

POWER MODULE ASSY.
230V
VCS

D 2511-2001-1D 1

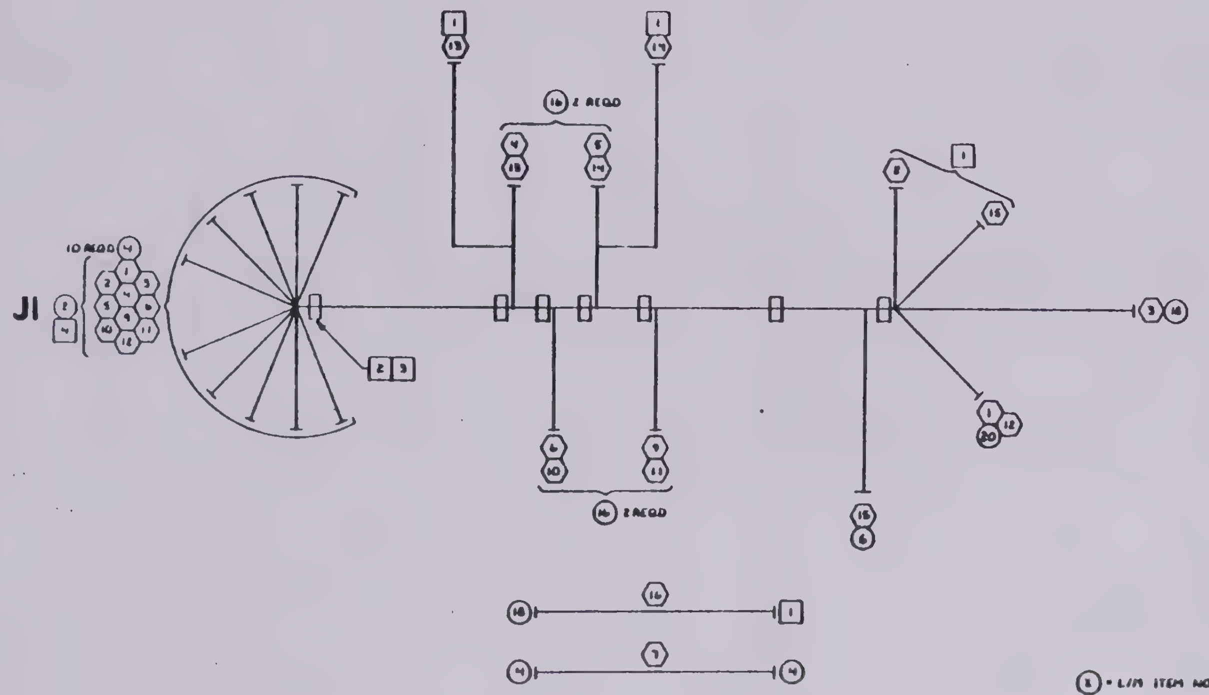
SEE L/M 2511-2001-1L

2511

K. ZIEGLER

SCALE 1/1

LTR	DESCRIPTION
A	RESTRICTED RELEASE
1	PRE-RELEASE
2	PER ECN 2453
3	REVISED PER ECN 2475 & RELEASE
4	TRACKING PER ECN 2615



NOTES:

1. WIRES TO BE STRIPPED AS REQD AT TIME OF INSTALLA IN PWR MODULE ASSY.
2. MARK CABLES WITH P/N & REV, APPROX WHERE SH
3. INSTALL CABLE TIES APPROX WHERE SHOWN
4. MARK CONNECTOR WITH DESIGNATOR (J1), USING HIGH CHARACTERS, COLOR, BLACK EPOXY INK

(X) = L/M ITEM NO.

⬡X = WIRE LIST WIRE NO.

GenRad

CABLE ASSY, PWR MODULE, 230V (J1)

K. ZIEGLER

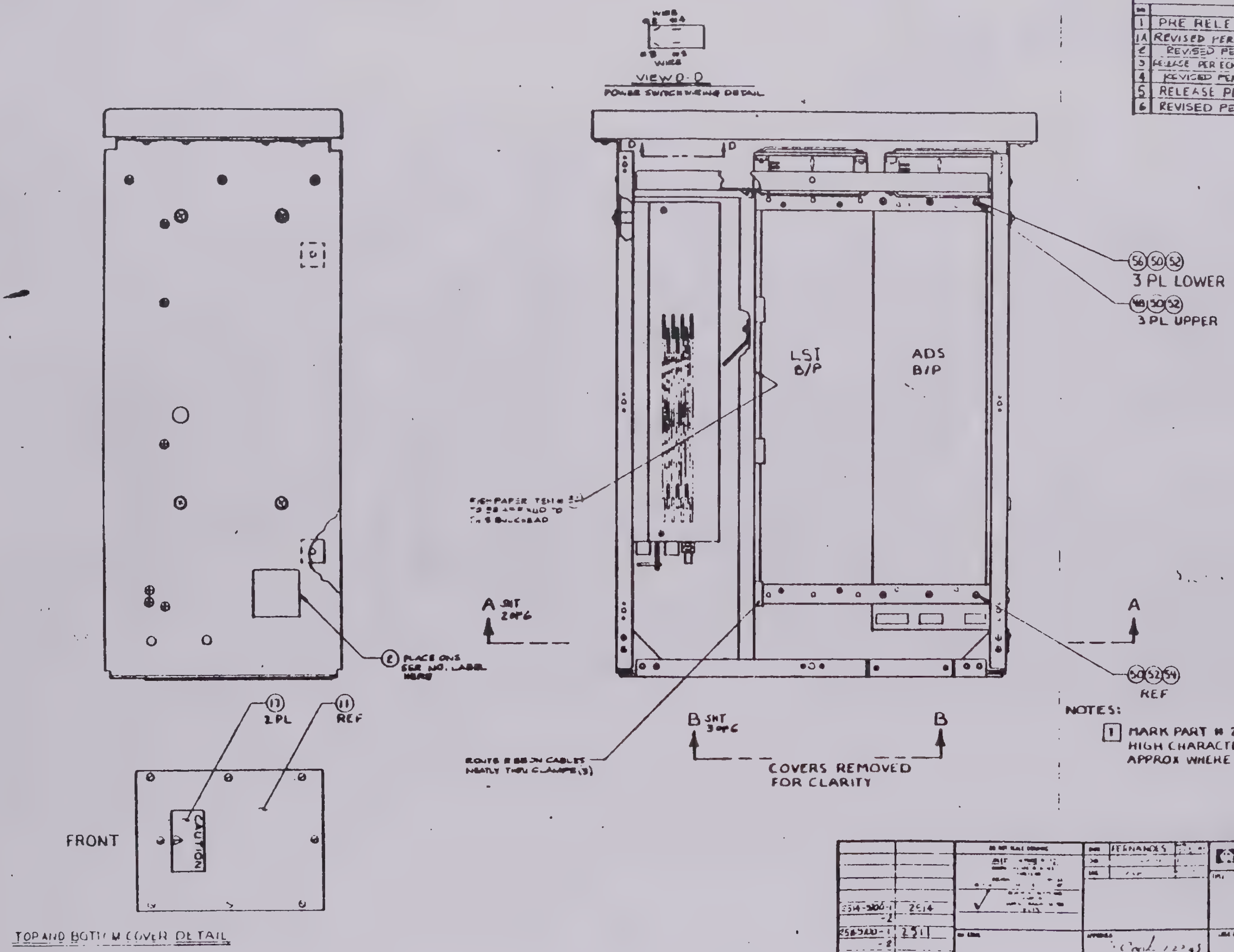
SEE L/M 2510-2013-IL

2510

D | 2510-2013 ID

SCALE 1/1

	Description
1	PRE RELEASE PER ECN # 2696
1A	REVISED PER ECN # 2681
2	REVISED PER ECN 2729
3	RELEASE PER ECN 2751/TRACKING PER ECN 2782
4	REVISED PER ECN 27?6
5	RELEASE PER ECN 2787/2785
6	REVISED PER ECN 2823



NOTES:

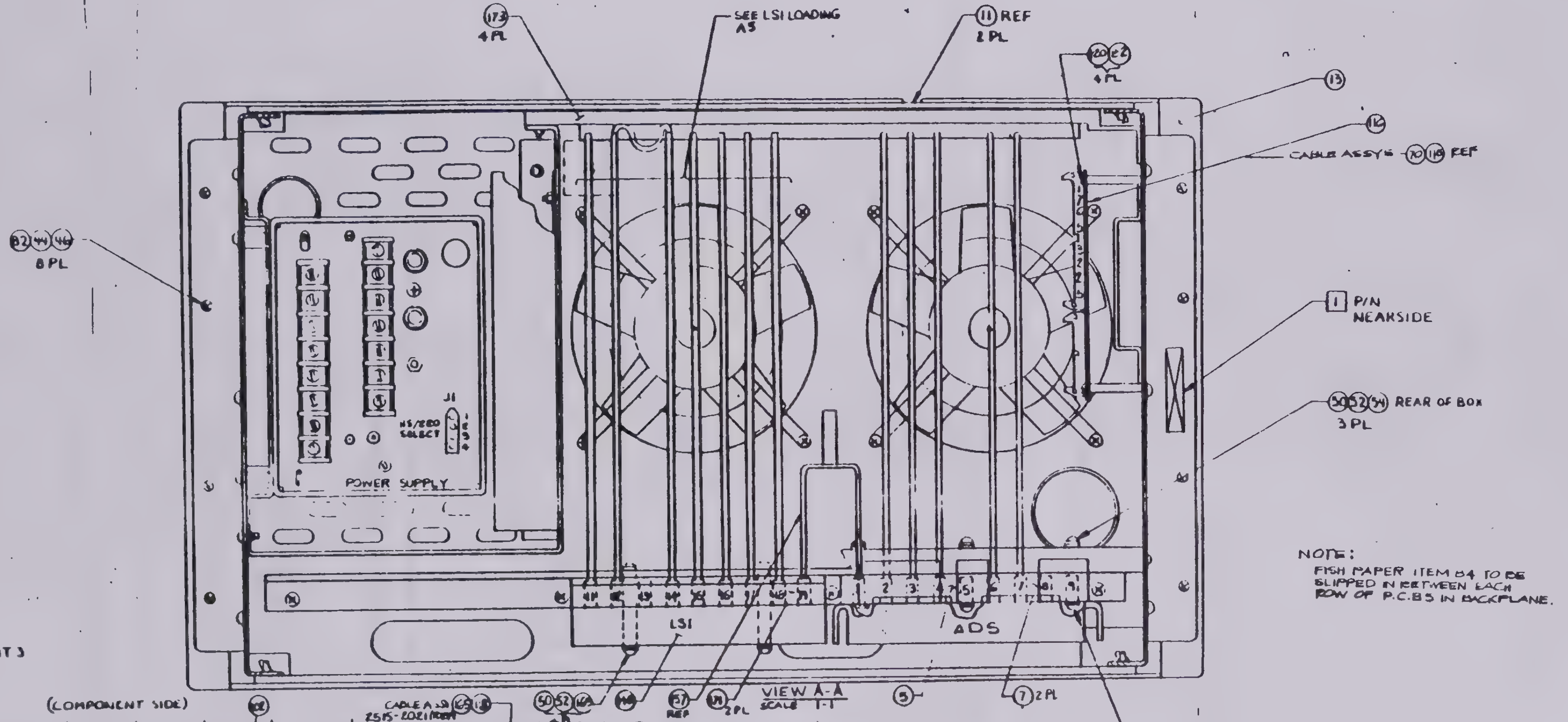
1. MARK PART # 2511-3001 & REV. USING .12 HIGH CHARACTERS COLOR BLACK EPOXY INK APPROX WHERE SHOWN. (NEARSIDE)

GenRad

VCS BOX ASSY

D 2511-3001

SEE SHT I FOR REVISIONS



NOTE:
FISH PAPER ITEM 84 TO BE SLIPPED IN BETWEEN EACH ROW OF P.C.BS IN BACKPLANE.

SEE SHT 3

(COMPONENT SIDE)

	A	B	C	D	E	F
1	UNIBUS MULTI-CH 2501-2045		UNIVERSAL INTERFACE 1923-4980			
2	ADS DIGITAL BOARD #1 2501-4712-00					
3	ADS DIGITAL BOARD #2 2501-4713-00					
4	UNIBUS TERMINATOR		UNUSED			
5	UNUSED					
6	TRIGGER		ANALOG INPUT & FILTER 1923-4981			
7			OPTION (FILTER)			
8	UNUSED		OPTION (FILTER)			
9	UNUSED		OPTION (FILTER)			

ADS LOADING (REF ONLY)
SEE ITEM # 5

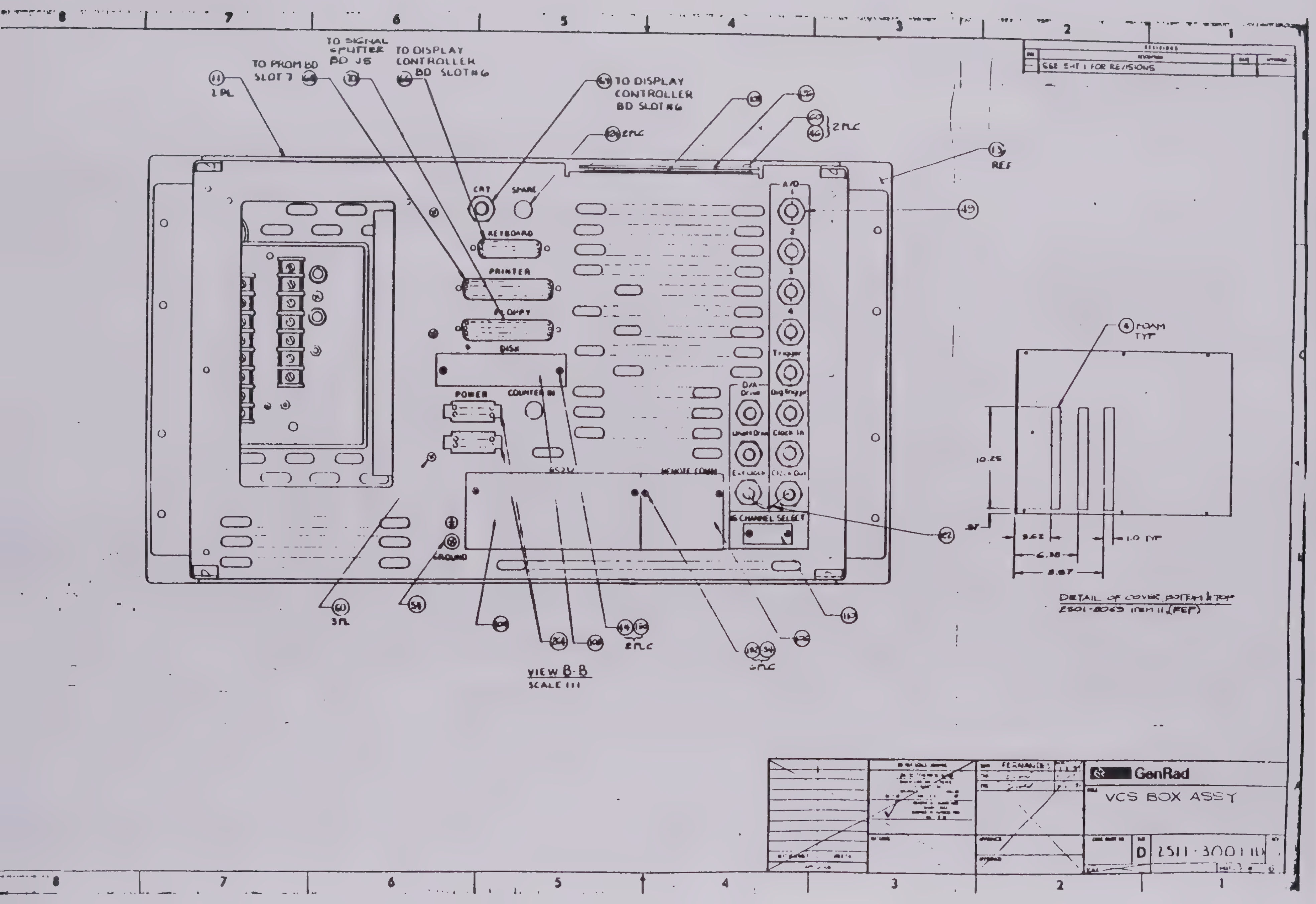
CABLE ASSY 2515-2021

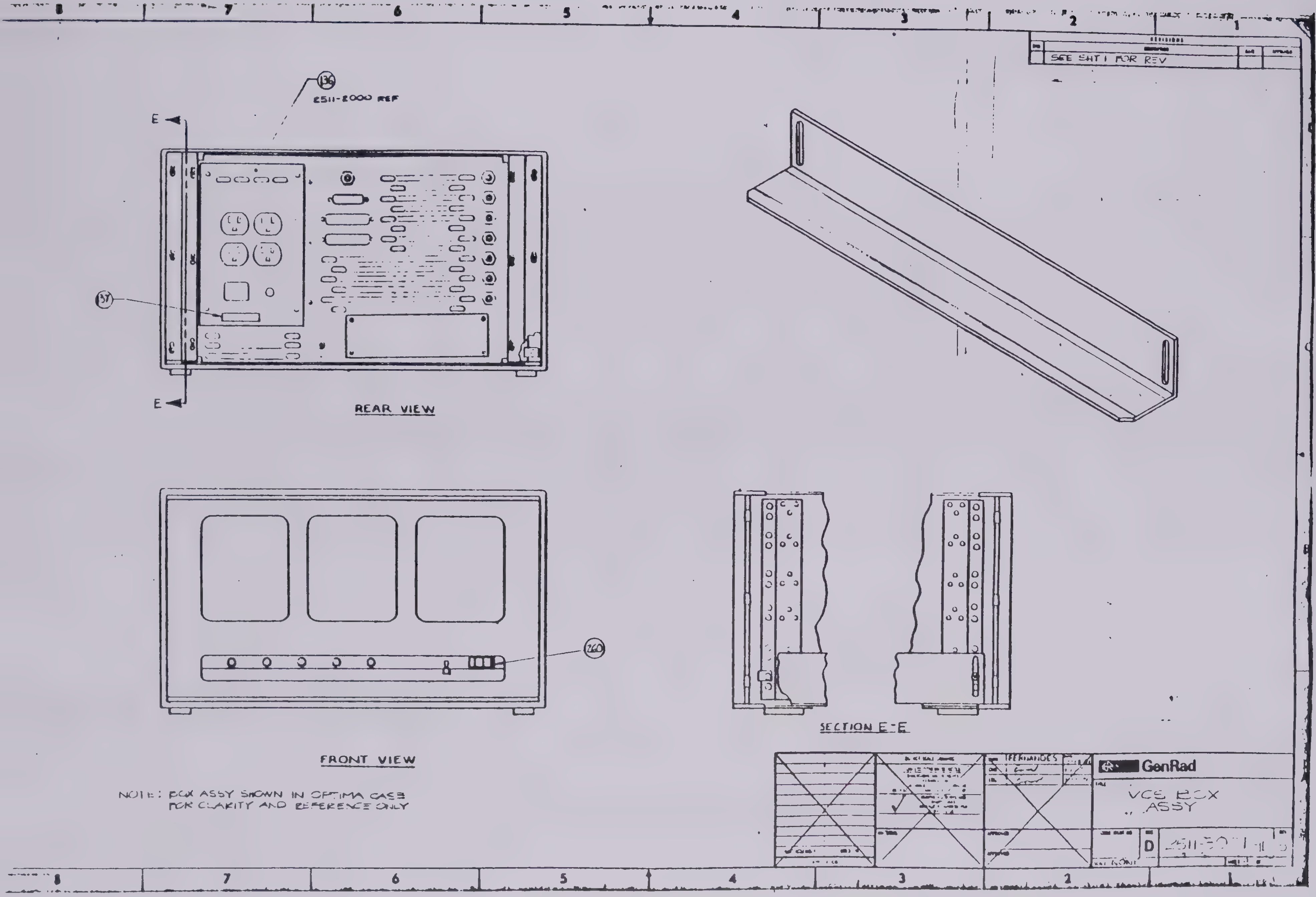
	A	B	C	D	E	F
11	SPARE		SPARE		(CONTROLLER)	
12	Q-DAS 2511-4701					
13	DISK CONTROLLER		MEMORY CARD		Q-BUS/UNIBUS INTFC. P.C.B	
14	Q-BUS/UNIBUS INTFC (PADDLE BD)		UNUSED			
15	UNIBUS INTERFACE 2501-4703					
16	DISPLAY CONTROLLER 2501-4702					
17	PROM BOARD 2501-4701-01					
18	CPU BOARD 2501-4700					
19	UNIBUS MULTI-CH OUT 2501-2045		UNUSED			

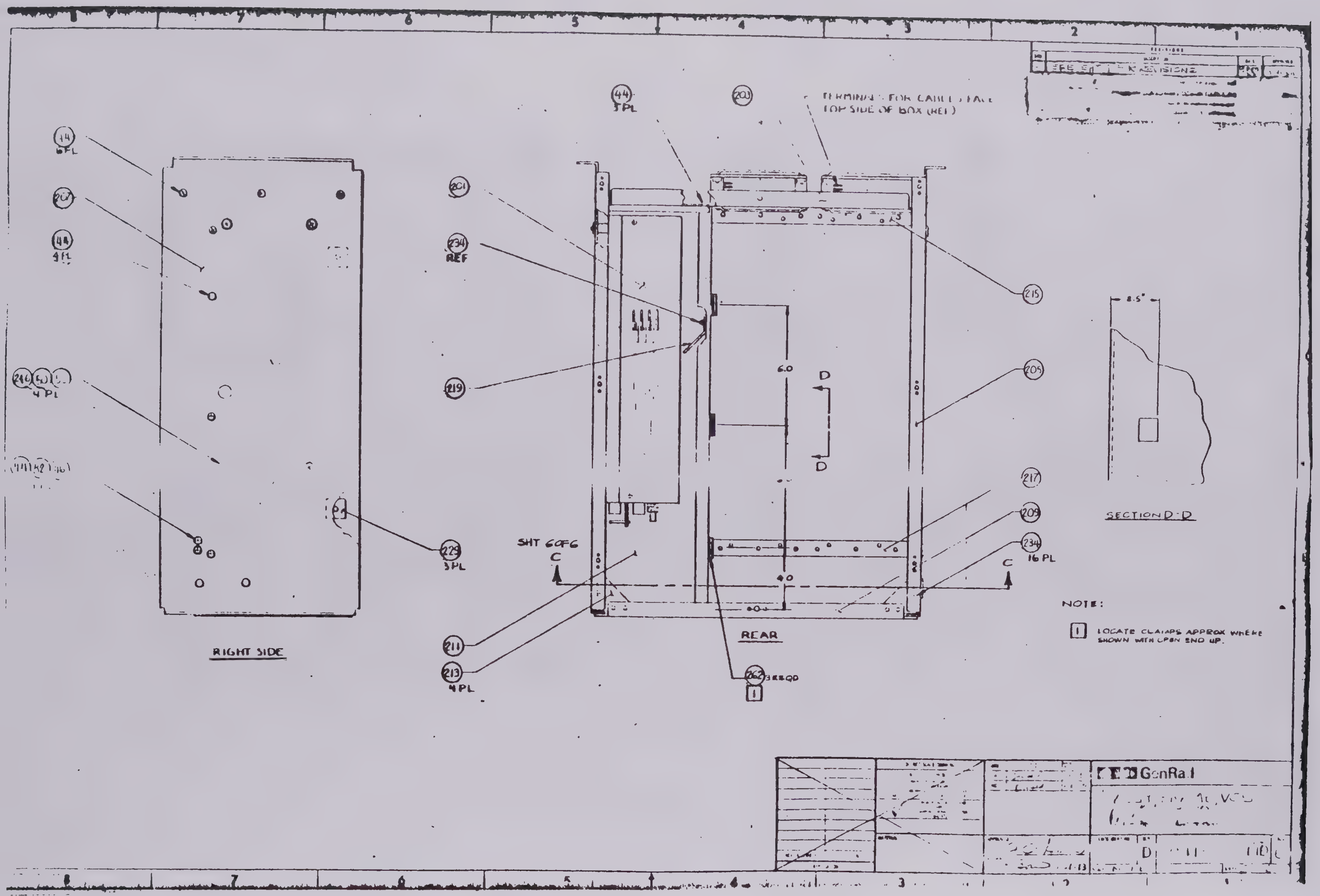
LSI LOADING

CABLE ASSY 2510-2025 (REF)
CABLE ASSY 2510-2006 (REF)
CABLE ASSY 2510-2007 (REF)

GenRad
VCS
BOX ASSY
D 2511-3001 ID 6

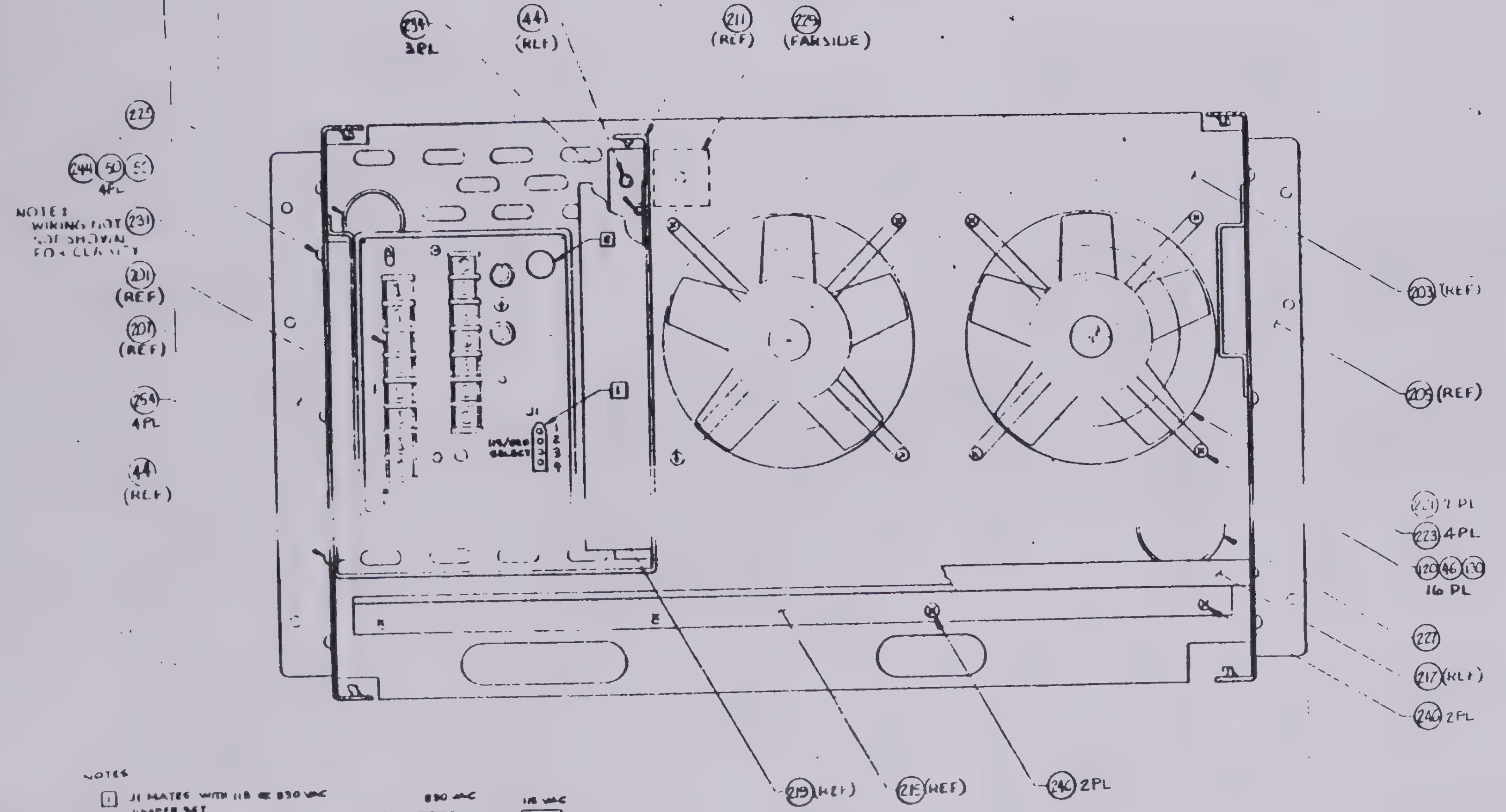

TO PROM BD SLOT 7
TO SIGNAL SPLITTER BD J5
TO DISPLAY CONTROLLER BD SLOT #6
TO DISPLAY CONTROLLER BD SLOT #6
2 PL
2 PLC
2 PLC
REF
SEE SHT 1 FOR REVISIONS
CRT
SPARE
KEYBOARD
PRINTER
FLOPPY
DISK
POWER
COUNTER IN
RS232
REMOTE COMM
GROUND
A/D
Trigger
D/A Drive
Dig Trigger
Clock In
Clock Out
CHANNEL SELECT
FOAM TYP
10.25
1.0 TYP
DETAIL OF COVER BOTTOM & TOP
2501-8063 ITEM 11 (REF)
3 PL
2 PLC
VIEW B-B
SCALE 1:1
GenRad
VCS BOX ASSY
D
2511-3001


SEE SHT 1 FOR REV
136
2511-2000 REF
37
E
E
REAR VIEW
260
FRONT VIEW
SECTION E-E
NOTE: BOX ASSY SHOWN IN OPTIMA CASE
FOR CLARITY AND REFERENCE ONLY
GenRad
VCS BOX
ASSY
D



TERMINALS FOR CABLE FACE TOP SIDE OF BOX (REF)
44 3PL
203
44 6PL
207
44 4PL
201
234 REF
219
215
205
6.0
D
D
217
209
234 16PL
229 3PL
SHT 6 OF 6
C
C
4.0
211
213 4PL
262
RIGHT SIDE
REAR
SECTION D-D
8.5"
NOTE:
1 LOCATE CLAMPS APPROX WHERE SHOWN WITH OPEN END UP.
GenRad
D

SEE SHT 1 FOR REVISIONS

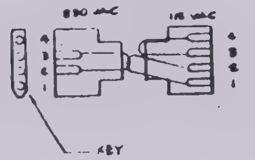


VIEW C-C
SCALE 1/1

NOTES

1. J1 MATES WITH 115 OR 230 VAC JUMPER SET

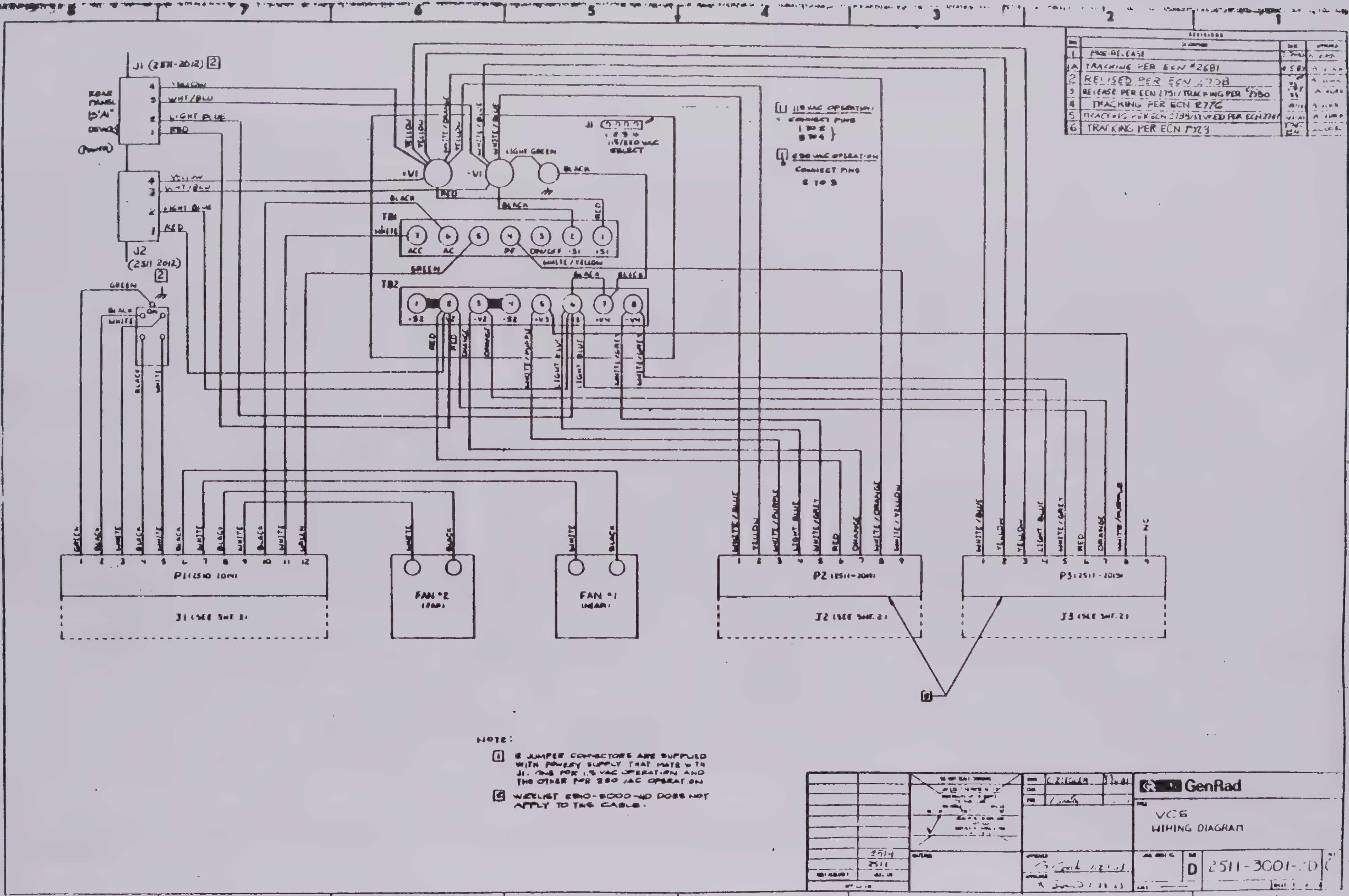
2. CIRCULAR LABEL SHOULD BE ADDED IN SYSTEMS INTEGRATION FOR EITHER 115 VAC OR 230 VAC OPERATION



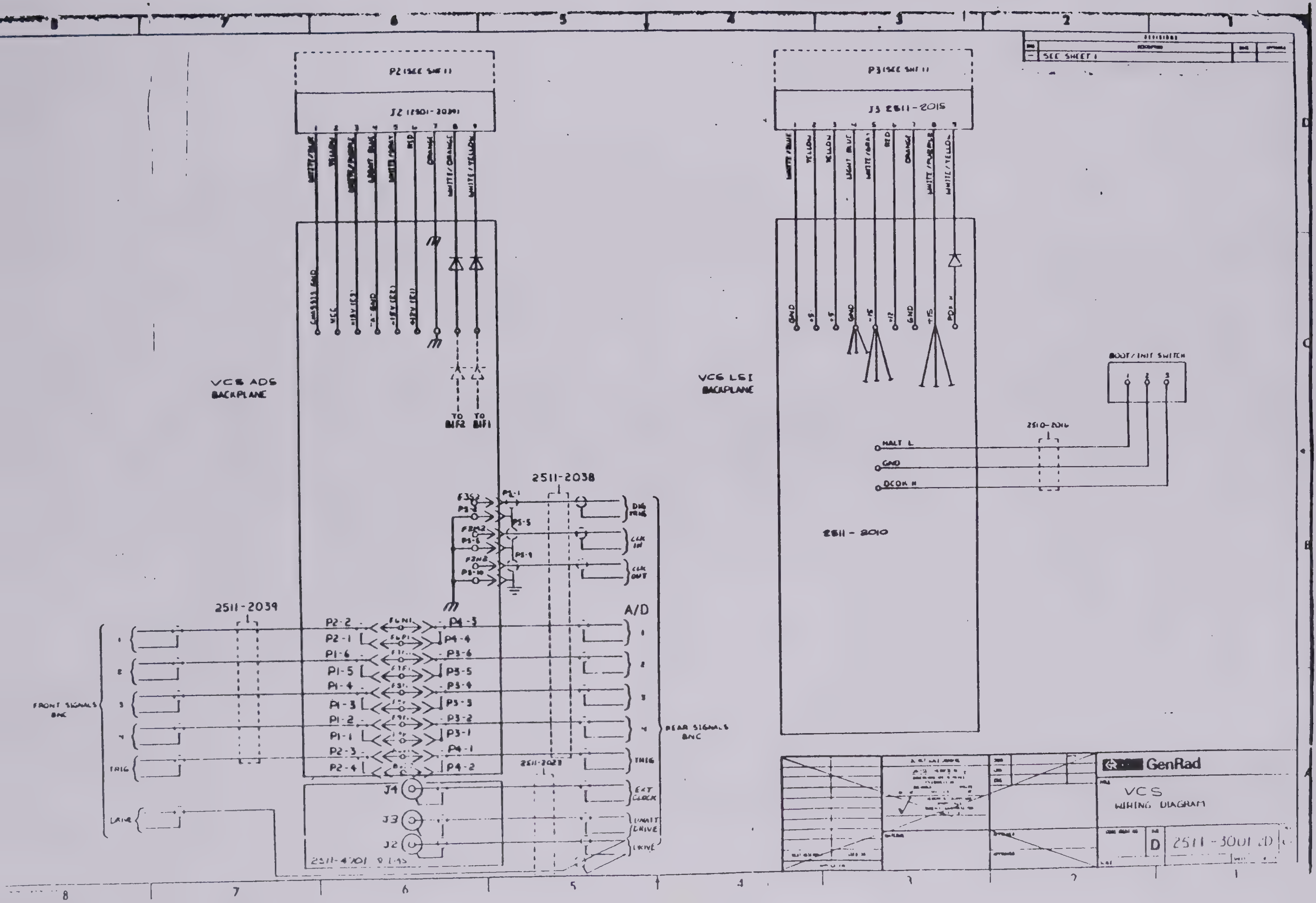
GenRad

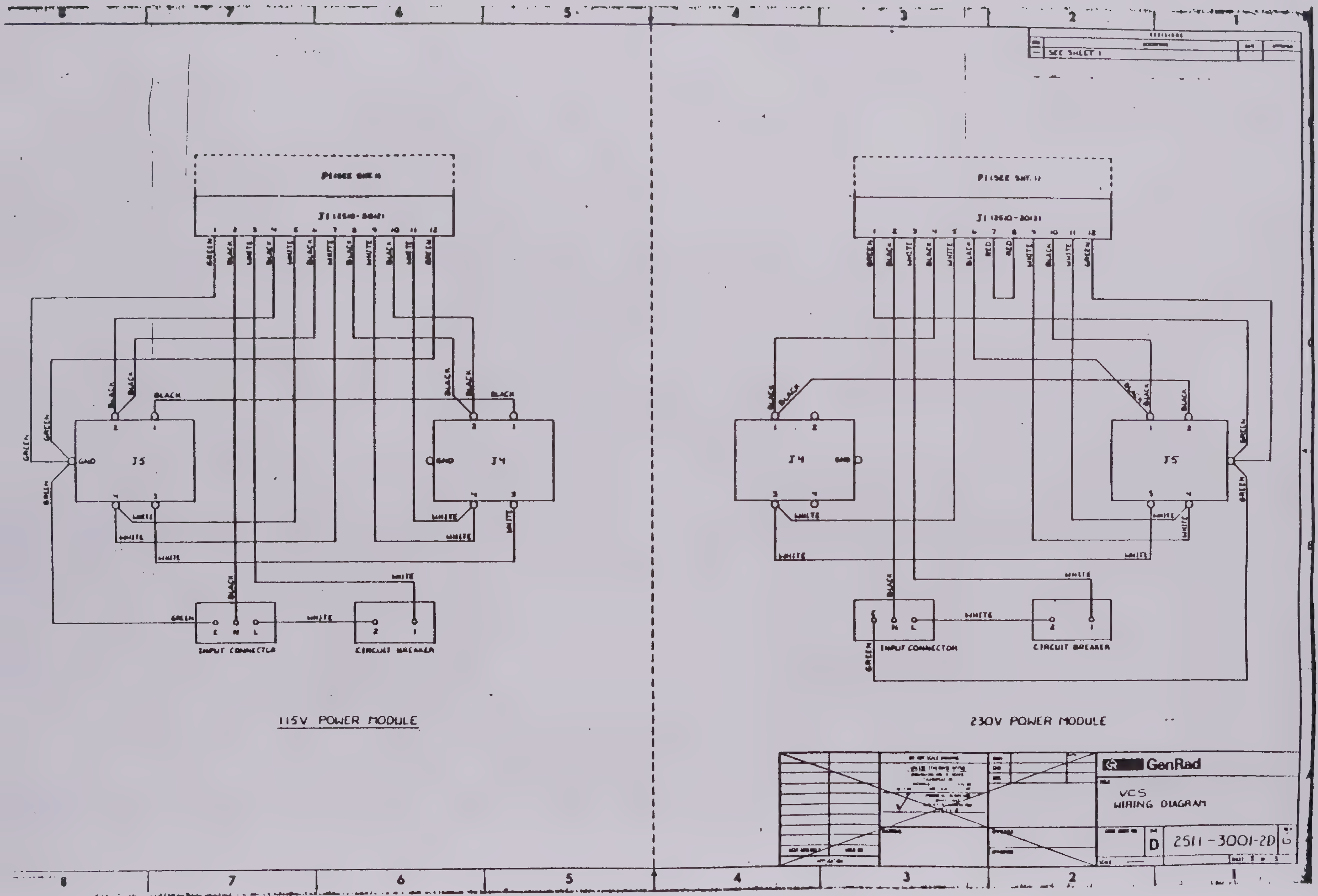
ASSY, ...

D



PRE-RELEASE
TRACKING PER ECN #2681
REVISED PER ECN 2738
RELEASE PER ECN 2751 / TRACKING PER 2780
TRACKING PER ECN 2776
TRACKING PER ECN 2795 / REVISED PER ECN
TRACKING PER ECN 2923
J1 (2511-2012) 2
REAR PANEL DEVICE (POWER)
YELLOW
WHT/BLU
LIGHT BLUE
RED
J2 (2511 2012) 2
GREEN
BLACK
WHITE
+V1
-V1
LIGHT GREEN
BLACK
RED
J1 115/230 VAC SELECT
1 115 VAC OPERATION CONNECT PINS 1 TO 2 3 TO 4
1 230 VAC OPERATION CONNECT PINS 2 TO 3
TB1
ACC
AC
PF
ON/OFF
-S1
+S1
WHITE / YELLOW
TB2
-S2
+V2
-V2
+V3
+V4
-V4
ORANGE
WHITE / PURPLE
LIGHT BLUE
WHITE / GREY
P1 (2510 2011)
J1 (SEE SHT 3)
FAN #2 (REAR)
FAN #1 (REAR)
WHITE / BLUE
WHITE / ORANGE
WHITE / YELLOW
P2 (2511-2011)
J2 (SEE SHT. 2)
P3 (2511-2013)
J3 (SEE SHT. 2)
NC
NOTE:
1 2 JUMPER CONNECTORS ARE SUPPLIED WITH POWER SUPPLY THAT MATE WITH J1. ONE FOR 115 VAC OPERATION AND THE OTHER FOR 230 VAC OPERATION.
6 WIRELIST 2510-5000-40 DOES NOT APPLY TO THIS CABLE.
C. ZIEGLER
GenRad
VCS
WIRING DIAGRAM
D
2511-3001

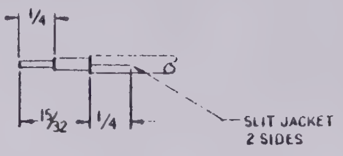

SEE SHEET 1
P2 (SEE SHT 1)
J2 (2501-2039)
P3 (SEE SHT 1)
J3 2511-2015
WHITE/YELLOW
WHITE/ORANGE
ORANGE
RED
LIGHT BLUE
YELLOW
WHITE/PURPLE
WHITE/GRAY
GND
+5
-5
+12
+15
-15
POK H
VCC
CHASSIS GND
VCS ADS
BACKPLANE
VCS LSI
BACKPLANE
TO BIF1
TO BIF2
2511-2010
BOOT/INIT SWITCH
2510-2016
HALT L
DCOK H
2511-2038
2511-2039
2511-2028
A/D
DIG TRIG
CLK IN
CLK OUT
TRIG
EXT CLOCK
LINE
REAR SIGNALS BNC
FRONT SIGNALS BNC
P2-2
P2-1
P1-6
P1-5
P1-4
P1-3
P1-2
P1-1
P2-3
P2-4
P4-3
P4-4
P3-6
P3-5
P3-4
P3-3
P3-2
P3-1
P4-1
P4-2
J4
J3
J2
2511-4701
GenRad
VCS
WIRING DIAGRAM
D
2511-3001

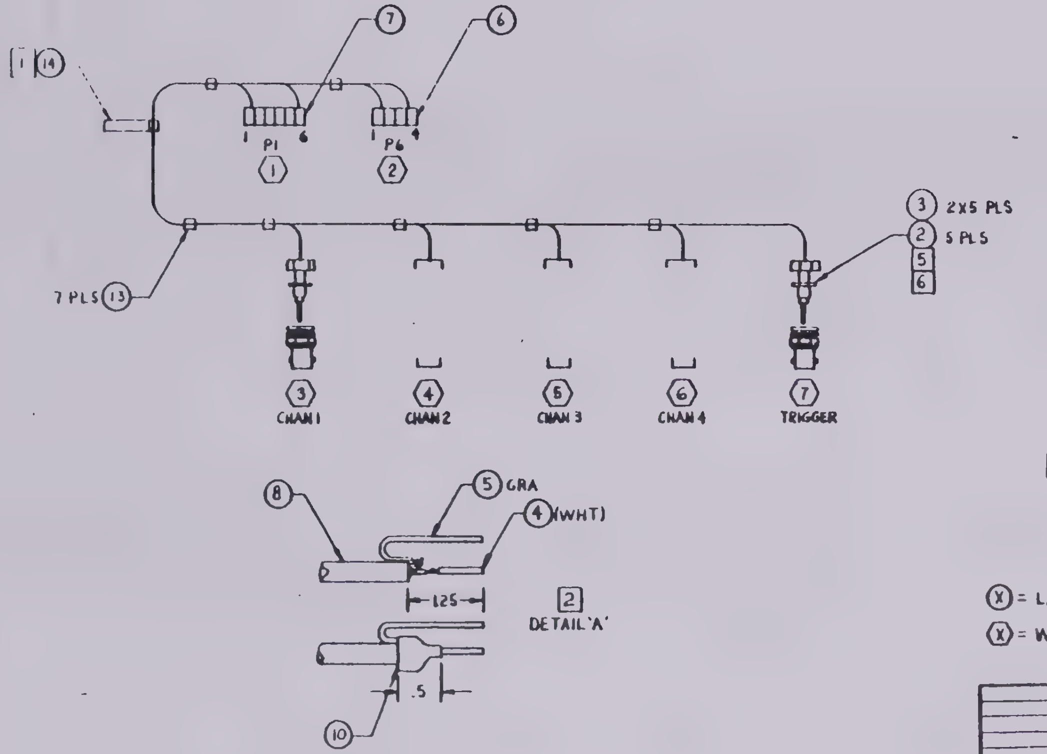

SEE SHEET 1
P1 (SEE SHT. 1)
J1 (2510-2013)
GREEN
BLACK
WHITE
RED
J4
J5
GND
INPUT CONNECTOR
CIRCUIT BREAKER
115V POWER MODULE
230V POWER MODULE
GenRad
VCS
WIRING DIAGRAM
D
2511-3001-2D

REV	DESCRIPTION	DATE	APPROVED
1	RELEASE PER ECN 2787		
2	REVISED PER ECN 2874		

NOTES:

1. MARK CABLE WITH P/N & REV
2. TERMINATE CABLES AS SHOWN IN DETAIL A
3. USE WITH L/M 2511 2039-1L
4. USE WITH WIRE LIST 2511 2039-4D
5. PANEL MOUNT PORTION OF ITEM 2 MAY BE SEPARATED FROM THIS ASSY TO FACILITATE PRODUCTION METHODS.
6. CABLE STRIP DETAILS:





(X) = L/M ITEM NO.

(X) = WIRE LIST LINE NO.

GenRad

CABLE ASSY.
VCS FRONT PANEL

D 2511-2039-1D 2

2511-2018 | 2511

SEE 2511-2039-1L

GenRad

DR	L. WITZEL	DATE 10-83			DRAWING NO 2511-2039-4D
CHK	[illegible]	7.13.84			SHEET 1 OF 2 — REV 2
APPD					TITLE
APPD			2511	2511-2018	WIRELIST, VCS FRONT PANEL
APPD			USED ON	NEXT ASSY	

SYM	REVISION DESCRIPTION	DATE	APPD	SYM	REVISION DESCRIPTION	DATE	APPD
1	RELEASED PER ECN 2787	20 DEC 83	A. VORA				
2	TRACKING PER ECN 2874	7.13.84	G. Cook				

RECORD OF REVISION OF EACH SHEET

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
1	1																														
2	1																														

1000-00.5 REV 1

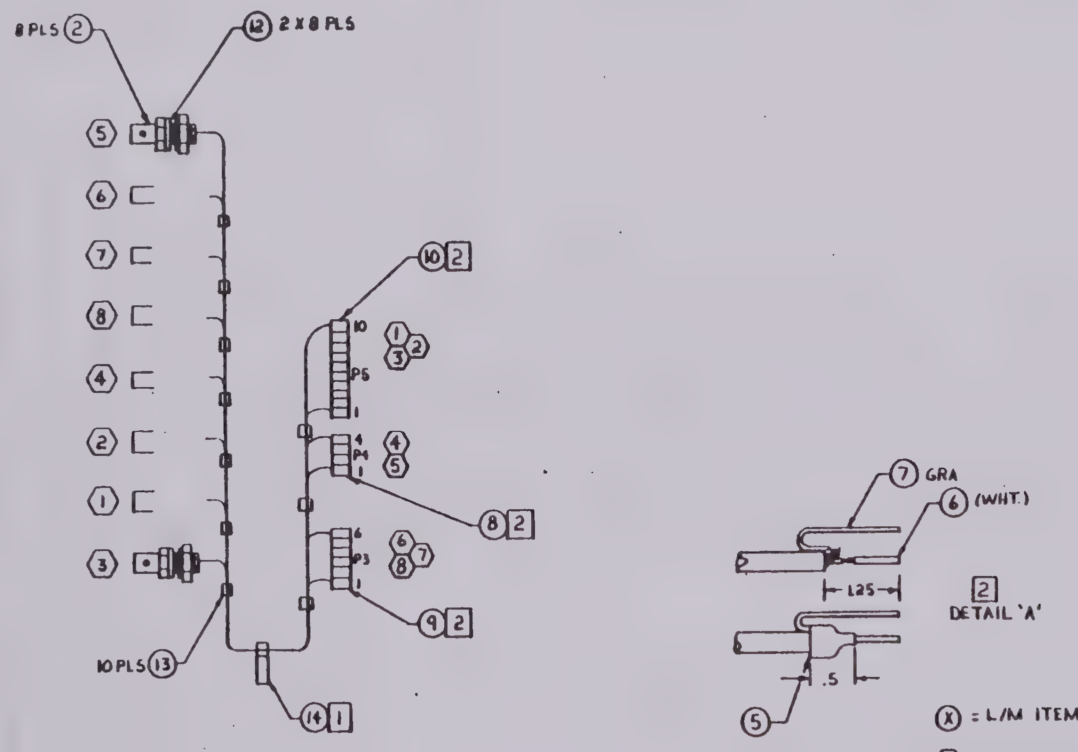
GenRad

TITLE WIRELIST, VCS FRONT PANEL — sht 2 of 2

DRAWING NO. 2511-2039-40 — rev 1

wire no.	FROM CONN	FROM PIN	TO CONN	TO PIN	FUNCTION		SIZE	COLOR
1	CHAN 1		P6	2		CTR	RG174	BLK
	BNC		P6	1		SHLD		
2	CHAN 2		P1	6		CTR	RG174	BLK
	BNC		P1	5		SHLD		
3	CHAN 3		P1	4		CTR	RG174	BLK
	BNC		P1	3		SHLD		
4	CHAN 4		P1	2		CTR	RG174	BLK
	BNC		P1	1		SHLD		
5	TRIGGER		P6	3		CTR	RG174	BLK
	BNC		P6	4		SHLD		

REV	DESCRIPTION
1	RELEASE PER ECN # 2787



NOTES:

1. MARK CABLE WITH P/N & REV.
2. TERMINATE CABLES AS SHOWN IN DETAIL 'A'
3. USE WITH L/M 2511-2038-1L.
4. USE WITH WIRE LIST 2511-2038-1D.

(X) = L/M ITEM NO

(X) = WIRE LIST WIRE NO.

GenRad

CABLE ASSY, VCS REAR PANEL

D 2511-2038-1D REV 1

2511-2038-1L

2511-3001 2511

RAMOS

GenRad

DR	L. WITZEL	DATE 10-83		
CHK				
APPD				
APPD				2511-3001
APPD			USED ON	NEXT ASSY

DRAWING NO 2511-2038-4D

SHEET 1 OF 2

REV 1

TITLE WIRELIST, VCS REAR PANEL

SYM	REVISION DESCRIPTION	DATE	APPD	SYM	REVISION DESCRIPTION	DATE	APPD
1	RELEASED PER ECN 2787	20 OCT 83	A. VORA				

RECORD OF REVISION OF EACH SHEET

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
1	1																														

0000-0015 REV 1

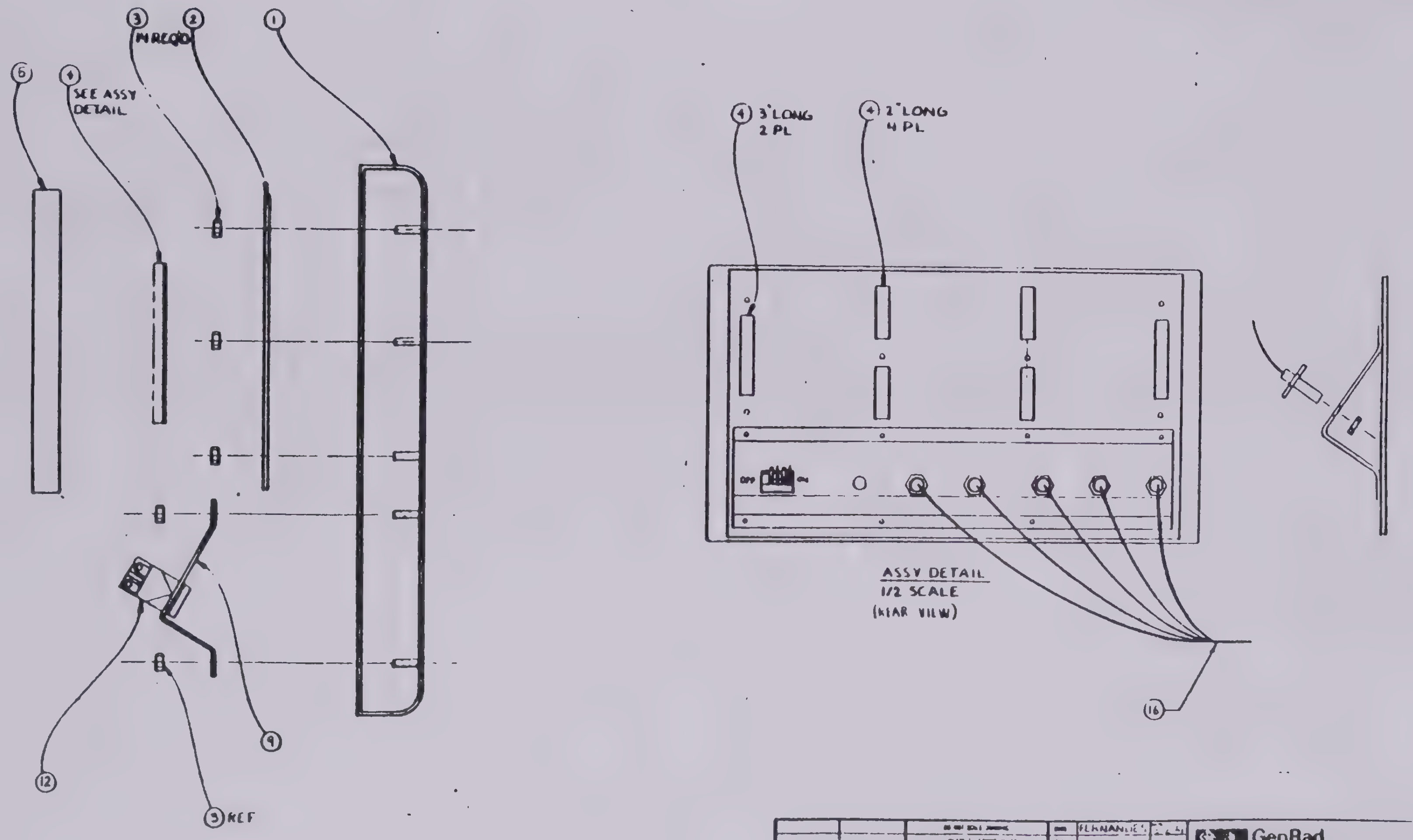
GenRad	TITLE WIRELIST, VCS REAR PANEL	sht 2 of 2
	DRAWING NO. 2511-2038-40	rev 1

wire no.	FROM CONN	FROM PIN	TO CONN	TO PIN	CABLE WIRE LIST FUNCTION		SIZE	COLOR
1	CLK IN		P5	5		CTR	RG174	BLK
	BNC		P5	6		SHLD		
2	DIG TRIG		P5	1		CTR	RG174	BLK
	BNC		P5	2		SHLD		
3	CLOCK OUT		P5	7		CTR	RG174	BLK
	BNC		P5	8		SHLD		
4	TRIGGER		P4	1		CTR	RG174	BLK
	BNC		P4	2		SHLD		
5	A/D 1		P4	3		CTR	RG174	BLK
	BNC		P4	4		SHLD		
6	A/D 2		P3	6		CTR	RG174	BLK
	BNC		P3	5		SHLD		
7	A/D 3		P3	4		CTR	RG174	BLK
	BNC		P3	3		SHLD		
8	A/D 4		P3	2		CTR	RG174	BLK
	BNC		P3	1		SHLD		

NOTES:

1. ITEM (4) COMES 1.0 IN WIDTH CUT IN HALF TO BE .50 IN WIDTH.
2. USE ITEM (6) CABLE CLAMP AS REQD.

	REVISIONS		
1	PRE RELEASE		
2	TRACKING PER ECN 2692		
3	REVISED PER ECN 2751		
4	RELEASED PER ECN 2787		
5	REVISED PER ECN 2832		
6	REVISED PER ECN 2925		

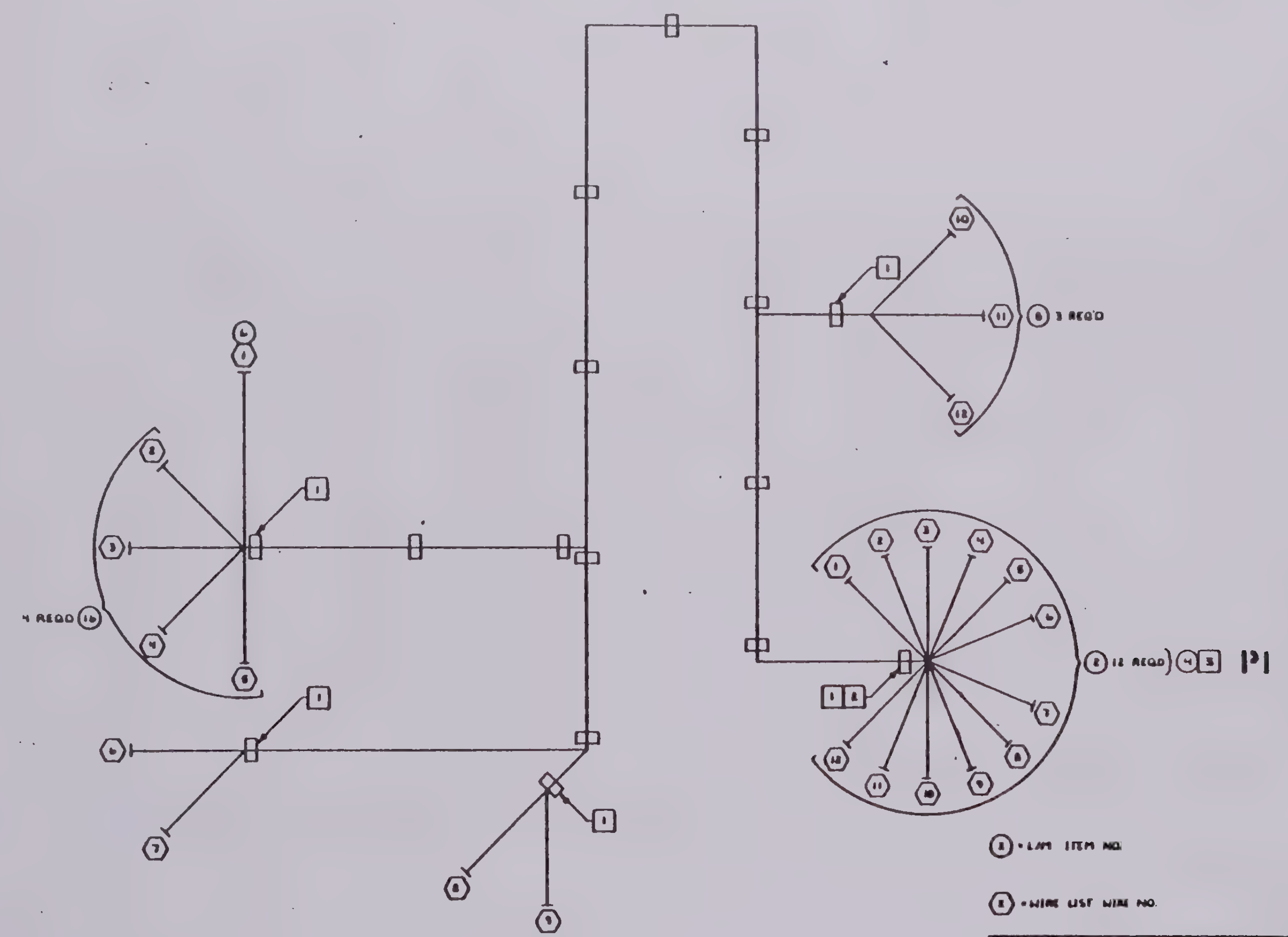


GenRad

PANEL ASSY, FRONT, VCS

D 2511 2018 10

REV	DESCRIPTION
1	INITIAL RELEASE
2	RESTRICTED RELEASE - ADDED P1 DELETED SLEEVE
2A	PRE-RELEASE
B	RELEASED



1. ATTACH END TIE WRAPS FIRST. AFTER REMOVING CABLE FROM NAIL BOARD, ADD INNER TIE WRAPS. THE CABLE WILL BE STRAIGHT (APPROX WHERE SHOWN)
2. MARK CABLE ASSY. WITH P/N & REV APPRO WHERE SHOWN
3. MARK CONNECTOR WITH DESIGNATOR (P1), USING .25 CHARACTERS, COLOR, BLACK EPOXY INK

(○) = LAM ITEM NO.

(⬡) = WIRE LIST WIRE NO.

GenRad

CABLE ASSY, FAN & POWER (P1)

SEE LM 2510-2014-1L

2510

D 2510-2014-1D

(MASTER)

GenRad

DR	C. ZIEGLER	DATE 1-21-81			
CHK	[illegible]	5-19-81			
APPD	[illegible]	3-11-81			
APPD			2510		
APPD			USED ON	NEXT ASSY	

DRAWING NO	2510-3000-40	5
	SHEET 1 OF 3	REV
TITLE WIRELIST, FRAME ASSEMBLY, MICRO MODAL		

SYM	REVISION DESCRIPTION	DATE	APPD	SYM	REVISION DESCRIPTION	DATE	APPD
1	RESTRICTED RELEASE						
2	RESTRICTED RELEASE						
2A	PRE-RELEASE [illegible]	3/19/81	[illegible]				
3	PER ECN 2452	6/15/81	[illegible]				
3A	RELEASED	7/7/81	[illegible]				
4	TRACKING PER ECN 2543	21 DEC 81	A. YORA				
5	TRACKING PER ECN 2597	6/21/82	[illegible]				

RECORD OF REVISION OF EACH SHEET

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
1	1	-																													
2	2	2																													
2A	2A	2A																													
3	3	2A																													
3A	3	2A																													
4	3	2A																													
5	3	2A																													

GenRad

TITLE FRAME ASSY, MICRO MODAL	SHT 2 OF 3
DRAWING NO. 2510-3000-4D	REV 3

CABLE TITLE CABLE ASSY, FAN & PWR SWITCH (P1)	CABLE DRAWING NO. 2510-2014-1D

CABLE WIRE LIST

WIRE NO.	FROM CONN	FROM PIN	TO CONN	TO PIN	FUNCTION	SIZE	COLOR
1	P1	1	PANEL GND	PANEL MTG SCREW	GND	18	GRN
2	↑	2	PWR SWITCH	ON	LINE	↑	BLK
3	│	3	↑	ON	LINE	│	WHT
4	│	4	↓	OFF	SWITCHED LINE	│	BLK
5	│	5	PWR SWITCH	OFF	SWITCHED LINE	│	WHT
6	│	6	FAN 1		PWR	│	BLK
7	│	7	FAN 1		RTN	│	WHT
8	│	8	FAN 2		PWR	│	BLK
9	│	9	FAN 2		RTN	│	WHT
10	│	10	PWR SPLY	TB1-6	PWR (AC)	│	BLK
11	↓	11	PWR SPLY	TB1-7	RTN (ACL)	↓	WHT
12	P1	12	PWR SPLY	TB1-5	GND (CASE GND)	18	GRN

GenRad	TITLE WIRE LIST, FRAME ASSEMBLY, MICRO MODAL	SHT 3 OF 3
	DRAWING NO. 2510-3000-4D	REV 2A

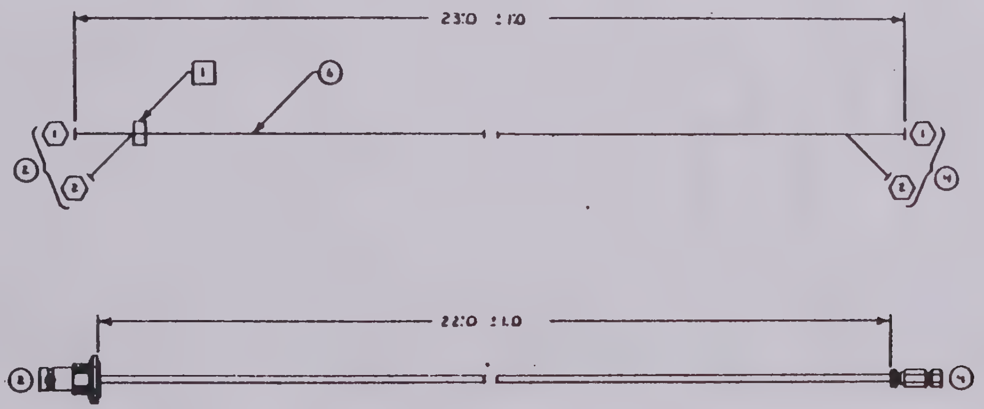
CABLE TITLE CABLE ASSY, BACKPLANE PWR P2/P3	CABLE DRAWING NO. 2510-2019-1D

WIRE NO.	FROM CONN	FROM PIN	TO CONN	TO PIN	FUNCTION	SIZE	COLOR
1	P2	1	POWER SUPPLY	-V1	CHASSIS GND	14	WHT /BLU
2	↑	2	↑	+V1	+5V	14	YEL
3		3		TB2-5	+15V	18	WHT /PURPLE
4		4		TB2-6	"A" GND	↑	LT BLUE
5		5		TB2-8	-15V		WHT /GREY
6		6		TB2-2	+12V		RED
7		7		TB2-3	CHASSIS GND		ORG
8	↓	8		+V1	+5	↓	WHT /ORG
9	P2	9		TB1-4	POWER FAIL	18	WHT /YEL
10	P3	1		-V1	CHASSIS GND	14	WHT /BLU
11	↑	2		+V1	+5V	14	YEL
12		3		+V1	+5V	18	YEL
13		4		TB2-6	"A" GND	↑	LT BLUE
14		5		TB2-8	-15V		WHT /GREY
15		6	↓	TB2-2	+12V	↓	RED
16		7	POWER SUPPLY	TB2-3	CHASSIS GND	18	ORG
17	↓	8	NOT WIRED				
18	P3	9					
	POWER SUPPLY JUMPER WIRES						
19	POWER SUPPLY	TB2-6	POWER SUPPLY	TB2-7	JUMPER	18	BLK
20	↑	-V1	↑	EARTH GND	↑	↑	LT GRN
21		-V1		TB1-2			BLK
22	↓	TB1-1	↓	+V1	↓	↓	RED
23	POWER SUPPLY	TB2-7	POWER SUPPLY	EARTH GND	JUMPER	18	BLK

REV	DESCRIPTION	DATE	APPROVED
1	INITIAL RELEASE		
1A	PRE-RELEASE		
1B	RELEASED		
2	PER ECN 2555		

NOTES:

1. MARK ASSY. WITH P/N & REV APPROX SHOWN.



(X) = L/M ITEM NO.

(X) = WIRE LIST WIRE NO.

NEXT ASSEMBLY	USED ON
2510-3001	2510

MATERIAL: SEE LM 2510-2005-N

DRN: C ZIEGLER

GenRad

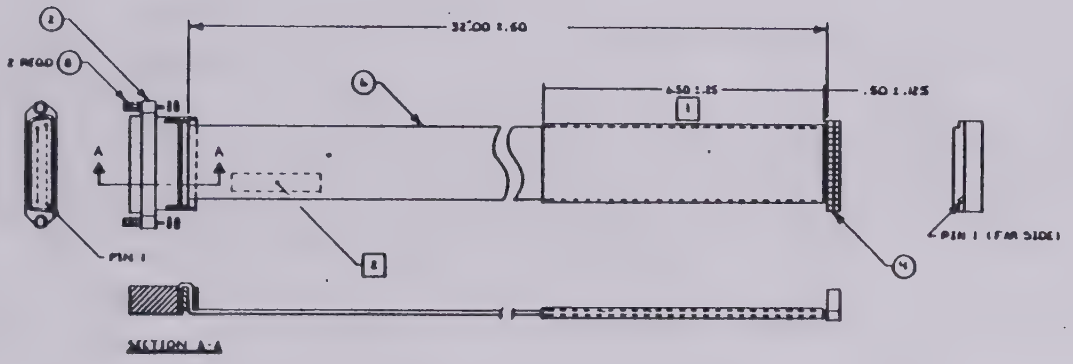
CABLE ASSY, INTERNAL CHT

SIZE: D — 2510-2005

REV	DESCRIPTION
1	INITIAL RELEASE
2	RESTRICTED RELEASE - RE-DRAWN
3	RESTRICTED RELEASE - ADDED STRAIN RELIEF
3A	PRE-RELEASE
3B	RELEASE
4	PER ECN 2450
5	TRACKING PER ECN 2698
6	TRACKING PER ECN 2755

NOTES:

1. INSULATION TO BE STRIPPED BACK LEAVING ONLY LENGTH SPECIFIED.
2. MARK P/N & REV USING .12 HIGH CHARACTERS, COLOR, BLACK EPOXY INK, LOCATE APPROX WHERE SHOWN.



GenRad

CABLE ASSY,
INTERNAL KEYBOARD

ZIEGLER

2510

SEE L/M 2510-2006-IL

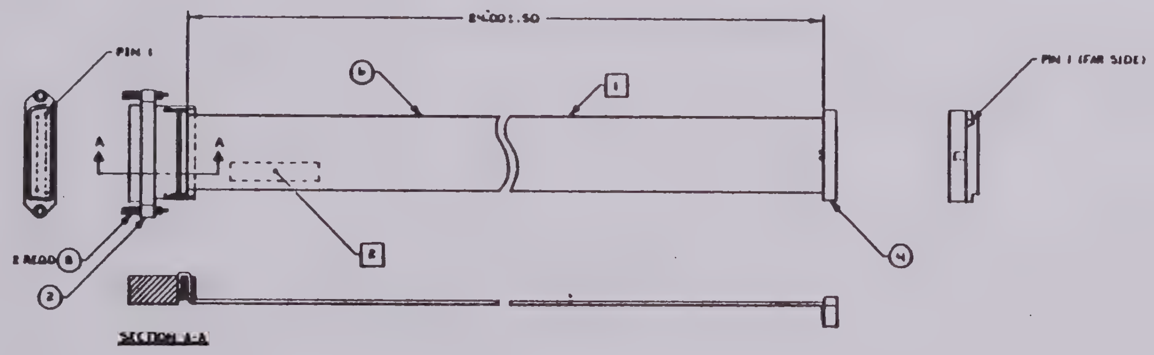
D 2510-2006-111 6

SCALE 1/1

REV	DESCRIPTION	DATE	APPROVED
1	INITIAL RELEASE		
2	RESTRICTED RELEASE RE-DRAWN		
3	RESTRICTED RELEASE		
4	RESTRICTED RELEASE - ADDED STRAIN RELIEF		
4A	PRE-RELEASE		
4B	RELEASED		
B	TRACKING PER ECN		

NOTES:

1. COLORED STRIPE TO BE MATCHED UP WITH PIN 1
2. MARK P/N & REV USING .12 HIGH CHARACTERS, COLOR, BLACK EPOXY INK, LOCATE APPROX WHERE SHOWN



GenRad

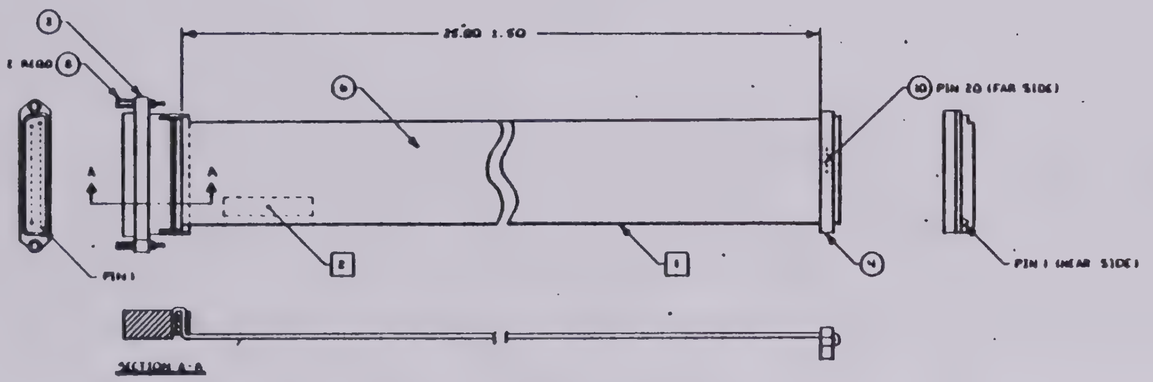
CABLE ASSY, INTERNAL PRINTER

DRN C. ZIEGLER

USED ON 2510

SIZE D | 2510-2007-1D

SCALE 1/1



NOTES:

1. COLORED STRIPE TO BE MATCHED UP WITH PIN 1
2. MARK P/N & REV USING .12 HIGH CHARACTERS, COLOR, BLACK EPOXY INK. LOCATE APPROX WHERE SHOWN

REV	DESCRIPTION
1	PRE-RELEASE

GenRad

CABLE ASSY, INTERNAL FLOPPY

C. ZIEGLER

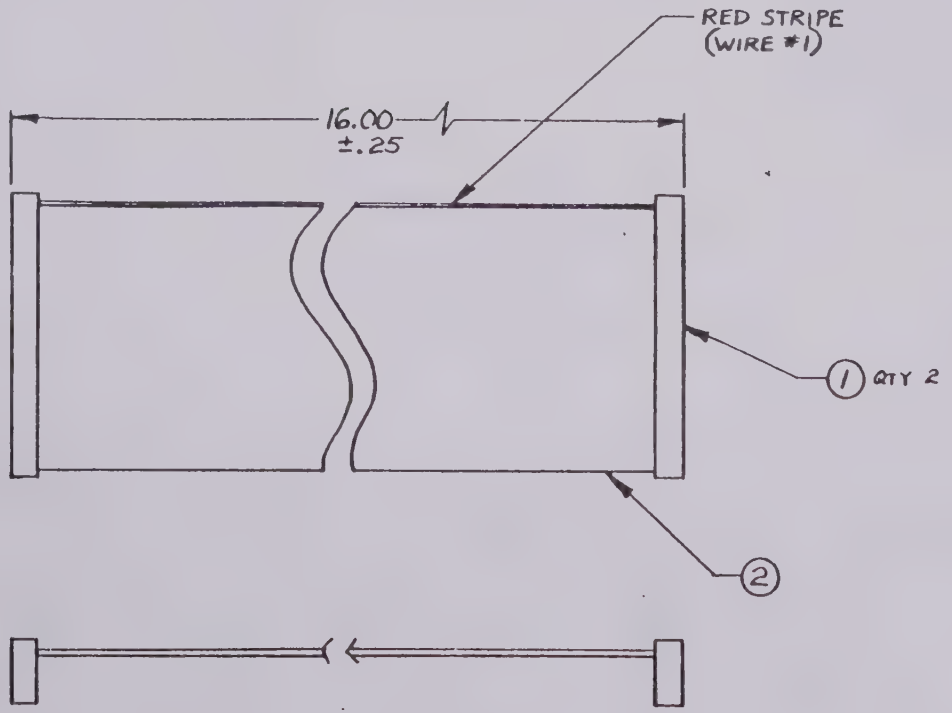
SEE L/M 2511-2005-1L

2511-3001 2511

D 2511-2005-1D 1

NOTES:

REVISIONS			
SYM	DESCRIPTION	DATE	APPROVED
1	PRERELEASE PER ECN 2708	27 APR 83	A. YORA



2511-3001	2511
NEXT ASSEMBLY	USED ON
APPLICATION	

DO NOT SCALE DRAWING
UNLESS OTHERWISE NOTED

MATERIAL

DRWN | CHK | ENG
APPROVED 5-16-83
APPROVED

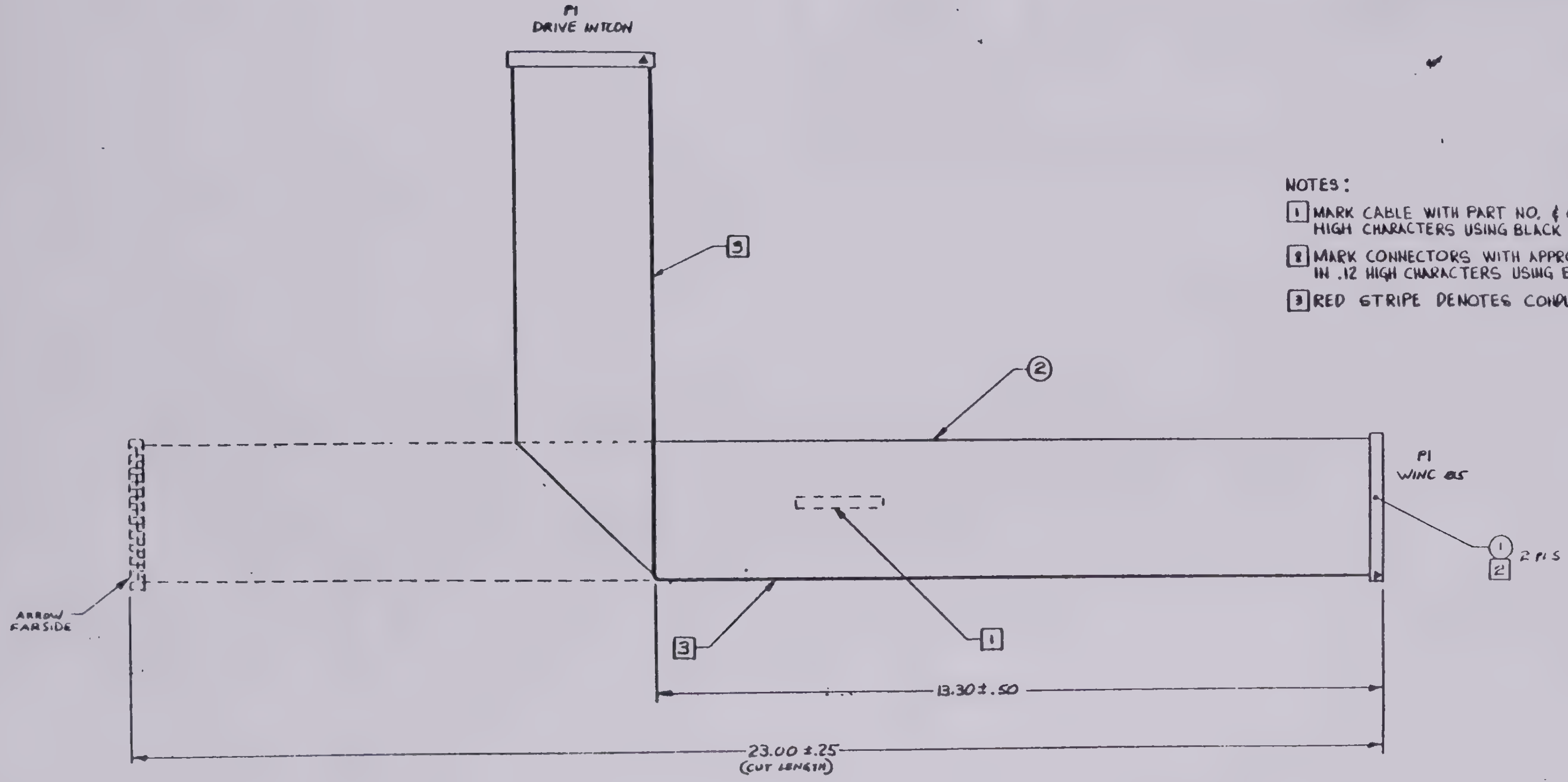
GenRad Time/Data Division

TITLE CABLE ASSY
Q-BUS UNIBUS INTERFACE

CODE IDENT NO | SIZE C | 2511-2006-1D | REV 1

SCALE 1:1 | SHEET 1 OF 1

1	PRE-RELEASE PER ECN 2683		
2	RELEASE PER ECN 3327		
3	REVISED PER ECN 2773		



NOTES:

1. MARK CABLE WITH PART NO. & CURRENT REV IN .12 HIGH CHARACTERS USING BLACK EPOXY INK.
2. MARK CONNECTORS WITH APPROPRIATE DESIGNATORS IN .12 HIGH CHARACTERS USING BLACK EPOXY INK.
3. RED STRIPE DENOTES CONDUCTOR NO. 1.

GenRad

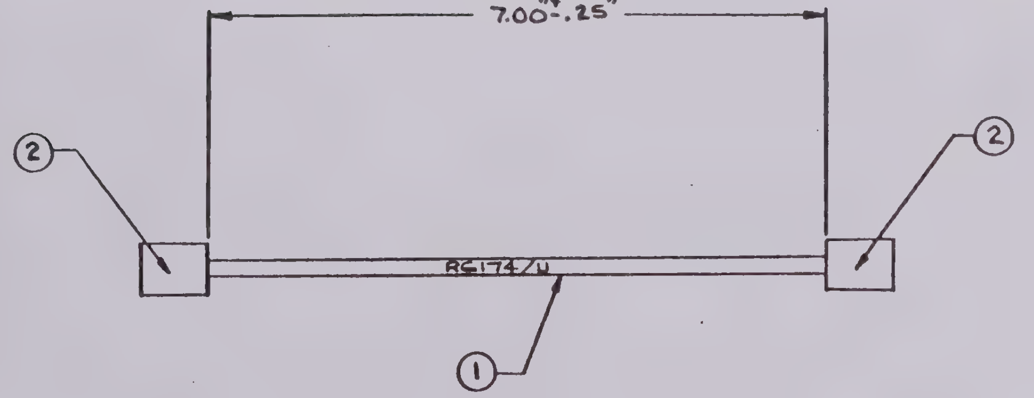
CABLE ASSY
CONTROLLER/PADDLE BD

D 2515-2021 ID

2515

NOTES:

REVISIONS			
SYM	DESCRIPTION	DATE	APPROVED
1	Final Design Release (ECN 1112)	10-5-73	



SYM	PART NO.	QTY REQD	SIZE, DESCRIPTION & SPECIFICATION
2	4213-0029	2	PLUG, CONNECTOR COAX
1	8163-3001	7 IN.	SHIELDED WIRE, COAX (RG174/U)

LIST OF MATERIALS OR PARTS LIST

DO NOT SCALE DRAWING

UNLESS OTHERWISE NOTED

DRAWN	[signature]	10-5-73
CHK'D	[signature]	10-8-73
ENG		

NEXT ASSY 1923-3003

TIME/DATA CORPORATION — PALO ALTO, CALIFORNIA

TITLE: JUMPER BNC CABLE

MATERIAL: SEE ABOVE

RELEASE STATUS

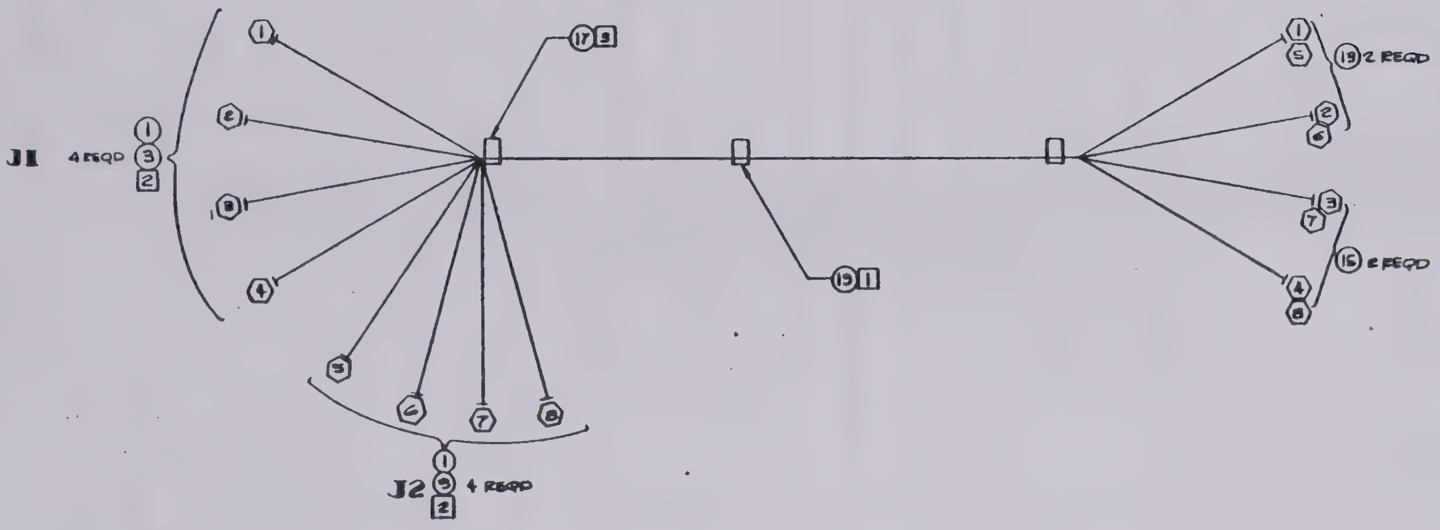
APPROVED

APPROVED

CODE IDENT NO — SIZE: C — 1923-2098 — REV: 1

SCALE 1/1 — SHEET 1 OF 1

1	PRE-RELEASE	[illegible]	[illegible]
2	TRACKING PER ECN [illegible]	[illegible]	[illegible]
3	REVISED PER ECN [illegible]	[illegible]	[illegible]



NOTES:

1. USE CABLE TIES APPROX. WHERE SHOWN
2. MARK CONNECTOR WITH APPROPRIATE DESIGNATOR (J1) OR (J2) USING .25 HIGH CHARACTERS COLOR, BLACK EPOXY INK.
3. MARK ASSY. WITH P/N & REV.

(X) = LM ITEM NO.

(X) = WIRE LIST WIRE NO.

GenRad

CABLE ASSY, DISK POWER (J1)

D 2511-2012

2511-8000 2511

SEE W/M 2511-2012

GenRad

DR	G. ENRILE	DATE 1-11-83			DRAWING NO 2511-2012-4D	3
CHK	G Cook	1.27.83			SHEET 1 OF 2	REV
APPD	K Bo	1.31.83			TITLE WIRELIST, VCS, DISK POWER (J1)	
APPD	A.VORA	31Jan83	2511	2511-3000		
APPD			USED ON	NEXT ASSY		

SYM	REVISION DESCRIPTION	DATE	APPD	SYM	REVISION DESCRIPTION	DATE	APPD
1	PRE-RELEASE		A. VORA				
2	TRACKING PER ECN 2692		A. VORA				
3	REVISED PER ECN 2709	15 APR 83	A. VORA				

RECORD OF REVISION OF EACH SHEET

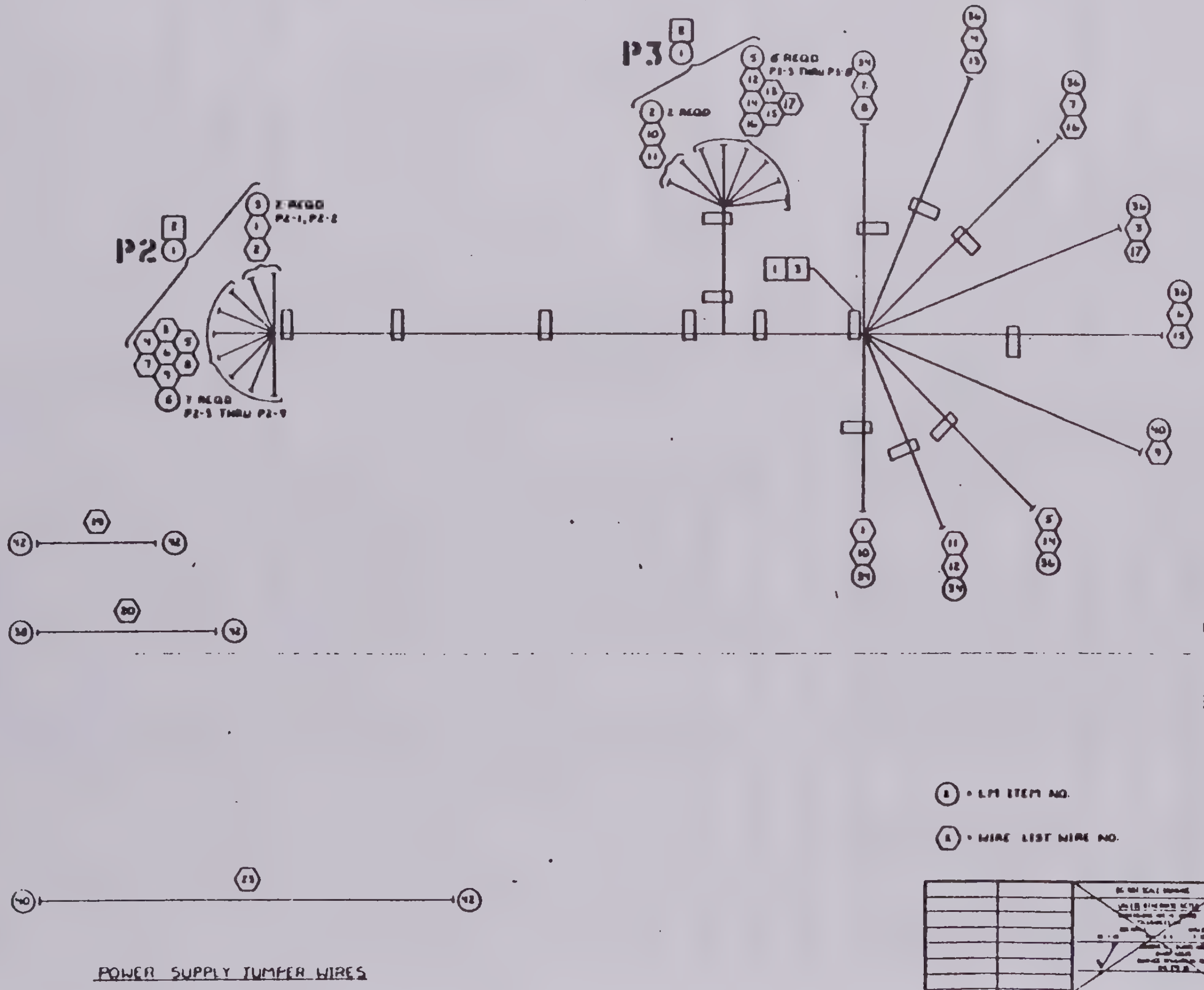
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
1	1																														
2	1																														
3	3																														

0000-0013 REV 1

GenRad	TITLE WIRELIST, VCS, DISK POWER (J1)	sht 2 of 2
	DRAWING NO. 2511-2012-4D	rev 3

wire	FROM		TO		CABLE WIRE LIST		
no.	CONN	PIN	CONN	PIN	FUNCTION	SIZE	COLOR
1	J1	1	PWR SUPPLY	TB2-2	+12V	18	RED
2	↑	2	↑	TB2-6	GND	18	LT BLU
3	↓	3		-V1	GND	14	WHT/BLU
4	J1	4		+V1	+5V	14	YEL
5	J2	1		TB2-2	+12V	18	RED
6	↑	2		TB2-6	GND	18	LT BLU
7	↓	3	↓	-V1	GND	14	WHT/BLU
8	J2	4	PWR SUPPLY	+V1	+5V	14	YEL

REV	DESCRIPTION	DATE	APPROVED
1	PRERELEASE		
2	RELEASED PER ECN 2775		



1. USE CABLE TIES APPROX. WHERE SHOWN.
2. MARK CONNECTOR WITH APPROPRIATE DESIGNATION (P2,P3) USING .25 HIGH CHARACTERS, COLOR, BLACK EPOXY INK.
3. MARK ASSY. WITH P/N & REV.

(1) = L/M ITEM NO.

(1) = WIRE LIST WIRE NO.

GenRad

CABLE ASSY,
BACKPLANE PWR VCG
P2/P3

C. ZIEGLER

SEE L/M 2511-2019 N

2511-3000 | 2511

D | 2511-2019 ID

GenRad

DR	G. ENRILE	DATE 1-11-83		
CHK	G. Cook	1.27.83		
APPD	K Brown	1.31.83		
APPD	A. VORA	31 Jan 83	2511	2511-3000
APPD			USED ON	NEXT ASSY

DRAWING NO	2511-2019-4D	SHEET 1 OF 2	REV 2
TITLE	WIRELIST, VCS, BACKPLANE POWER		

SYM	REVISION DESCRIPTION	DATE	APPD	SYM	REVISION DESCRIPTION	DATE	APPD
1	PRE-RELEASE	16 OCT 83	A. VORA				
2	RELEASED PER ECN 2775	16 OCT 83	A. VORA				

RECORD OF REVISION OF EACH SHEET

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
1	1																														
2	2																														

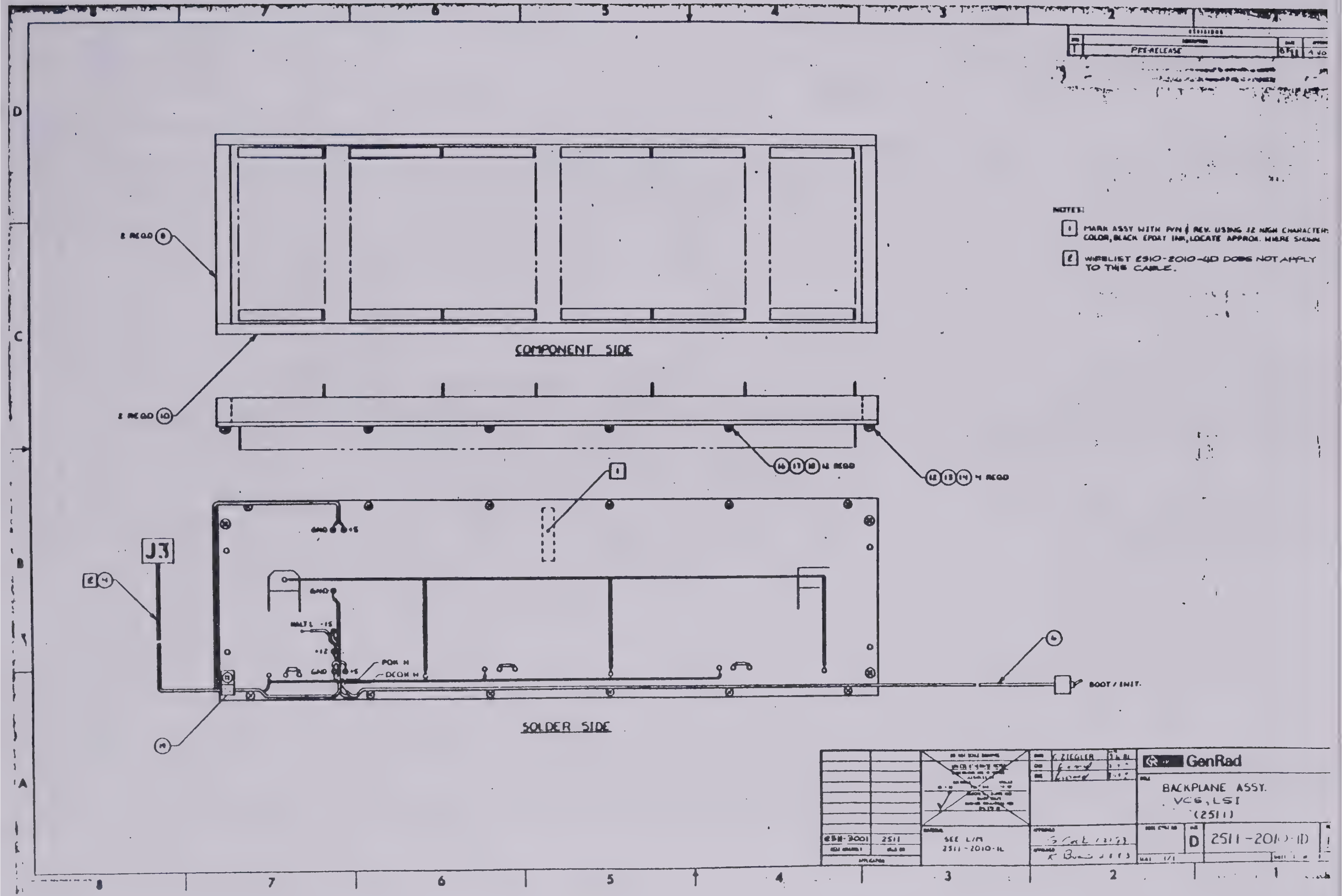
0000-0015 REV 1

GenRad

TITLE WIRELIST, VCS BACKPLANE PWR — sht 2 of 2

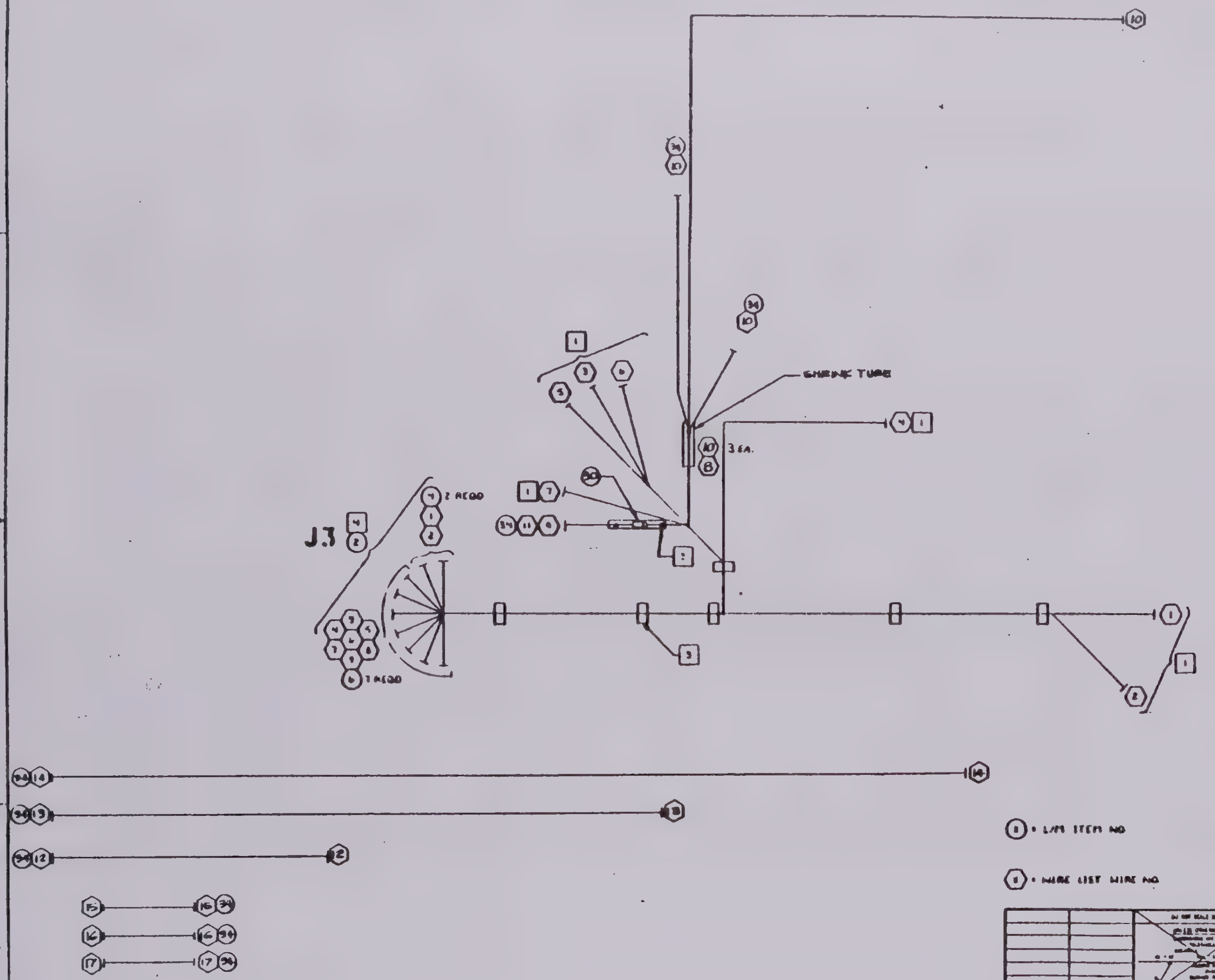
DRAWING NO. 2511-2019-4D — rev 2

wire	FROM		TO		CABLE WIRE LIST		
no.	CONN	PIN	CONN	PIN	FUNCTION	SIZE	COLOR
1	P2	1	PWR SUPPLY	-V1	CHASSIS GND	14	WHT/BLU
2	↑	2	↑	+V1	+5V	14	YEL
3		3		TB2-5	+15V	18	WHT/PURPLE
4		4		TB2-6	"A" GND	↑	LT BLUE
5		5		TB2-8	-15V		WHT/GREY
6		6		TB2-2	+12V		RED
7		7		TB2-3	CHASSIS GND		ORG
8	↓	8		+V1	+5	↓	WHT/ORG
9	P2	9		TB1-4	POWER FAIL	18	WHT/YEL
10	P3	1		-V1	CHASSIS GND	14	WHT/BLU
11	↑	2		+V1	+5V	14	YEL
12		3		+V1	+5V	18	YEL
13		4		TB2-6	"A" GND	↑	LT BLUE
14		5		TB2-8	-15V		WHT/GRAY
15		6	↓	TB2-2	+12V	↓	RED
16		7	PWR SUPPLY	TB2-3	CHASSIS GND	18	ORG
17	↓	8	PWR SUPPLY	TB2-5	+15V	18	WHT/PURPLE
18	P3	9	NOT WIRED				
POWER SUPPLY JUMPER WIRES							
19	POWER SUPPLY	TB2-6	POWER SUPPLY	TB2-7	JUMPER	18	BLK
20	↑	-V1	↑	EARTH GND	↑	↑	LT GRN
21	(NOT USED)						
22	↓ (NOT USED)		↓		↓	↓	
23	POWER SUPPLY	TB2-7	POWER SUPPLY	EARTH GND	JUMPER	18	BLK



PRE-RELEASE
NOTES:
1 MARK ASSY WITH P/N & REV. USING .12 HIGH CHARACTERS COLOR, BLACK EPOXY INK, LOCATE APPROX. WHERE SHOWN.
2 WIRELIST 2510-2010-4D DOES NOT APPLY TO THIS CABLE.
2 REQD
2 REQD
COMPONENT SIDE
4 REQD
4 REQD
J3
GND
+5
HALT L
-15
+12
GND
+5
POK H
DCOK H
BOOT/INIT.
SOLDER SIDE
K. ZIEGLER
SEE L/M
2511-2010-1L
2511
GenRad
BACKPLANE ASSY.
VCS, LSI
(2511)
D
2511-2010-1D
1/1

REV	DESCRIPTION
1	PRE-RELEASE
2	RELEASED PER ECN 2775



NOTES:

1. WIRES TO BE STRIPPED AS REQUIRED AT TIME OF ASSEMBLY ON BACKPLANE.
2. "o" DENOTES SOLDER JOINT.
3. USE CABLE TIES APPROX. WHERE SHOWN.
4. MARK CONNECTOR WITH APPROPRIATE DESIGNATOR USING .25 HIGH CHARACTERS, COLOR, BLACK EPOXY INK
5. MARK ASSY WITH P/N & REV.
6. BAG & TAG CABLE ASSY.

GenRad

CABLE ASSY, VCE, LSI BACKPLANE PWR (J3)

C. ZIEGLER

2511-2015 1D

D

SEE L/M 2511-2015-E

2SH-2010 2511

SCALE 1/1

GenRad

DR	G. ENRILE	DATE 1-11-83		
CHK	G Cook	1.27.83		
APPD	K Born	1-28-83		
APPD	A. VORA	3 Jan 83	2511	2511-2010
APPD			USED ON	NEXT ASSY

DRAWING NO 2511-2015-4D

REV 2

SHEET 1 OF 2

TITLE WIRELIST, VCS, LSI BACKPLANE POWER

SYM	REVISION DESCRIPTION	DATE	APPD	SYM	REVISION DESCRIPTION	DATE	APPD
1	PRE-RELEASE	16 OCT 83	A. VORA				
2	RELEASED PER ECN 2775	16 OCT 83	A. VORA				

RECORD OF REVISION OF EACH SHEET

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
1	1																														
2	2																														

0000-0015 REV

GenRad

TITLE WIRELIST, VCS LSI BACKPLANE POWER

sht 2 of 2

DRAWING NO. 2511-2015-4D

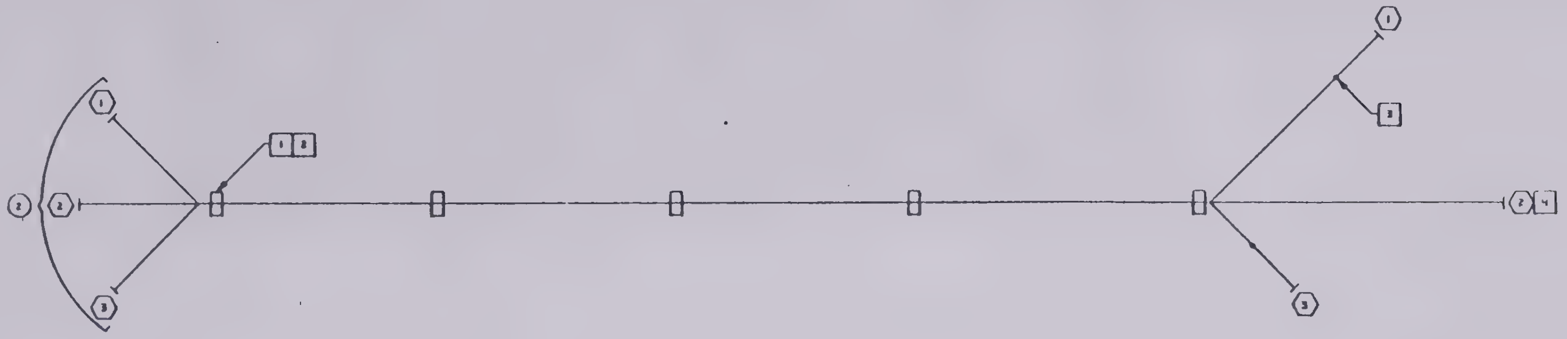
rev 2

wire	FROM		TO		CABLE WIRE LIST		
no.	CONN	PIN	CONN	PIN	FUNCTION	SIZE	COLOR
1	J3	1	LSI BACKPLANE	GND		14	WHT/BLUE
2		2		+5		14	YELLOW
3		3		+5		18	YELLOW
4		4		GND		18	LT. BLUE
5		5		−15		18	WHT/GRAY
6		6		+12		18	RED
7		7	LSI BACKPLANE	GND		18	ORG
8		8	SPLIT	⟨10⟩		18	WHT/PURP
9	J3	9	DIODE IN4144 ANODE	⟨11⟩		18	WHT/YEL
10	(SPLIT)	—	LSI BACKPLANE	A2F1	+15V	26	WHT
10	(SPLIT)	—	LSI BACKPLANE	C2F1	+15V	26	WHT
10	(SPLIT)	—	LSI BACKPLANE	E2F1	+15V	26	WHT
11	DIODE CATHODE	—	BP #2	POK H	—	26	WHT
12	LSI BACKPLANE	AGL2		B2H1	−15V	26	WHT
13		AGL2		D2H1	−15V	26	WHT
14		AGL2		F2H1	−15V	26	WHT
15		A2J1		A2H1	"A" GND	26	WHT
16		C2J1		C2H1	"A" GND	26	WHT
17	LSI BACKPLANE	E2J1	BP#2	E2H1	"A" GND	26	WHT

1	INITIAL RELEASE
1A	PRE-RELEASE
1B	RELEASED

NOTES:

1. MARK CABLE ASSY. WITH P/N & REV
2. INSTALL CABLE TIES APPROX. WHERE SHOWN
3. "•" INDICATES SOLDER JOINT BETWEEN 22 AWG WIRE WIRE WRAP WIRE.
4. WIRE TO BE STRIPPED AS REQD AT TIME OF INSTALA



(8) = L/M ITEM NO

⟨8⟩ = WIRE LIST WIRE NO

GenRad

CABLE ASSY,
BOOT AND INITIATE

C. ZIEGLER

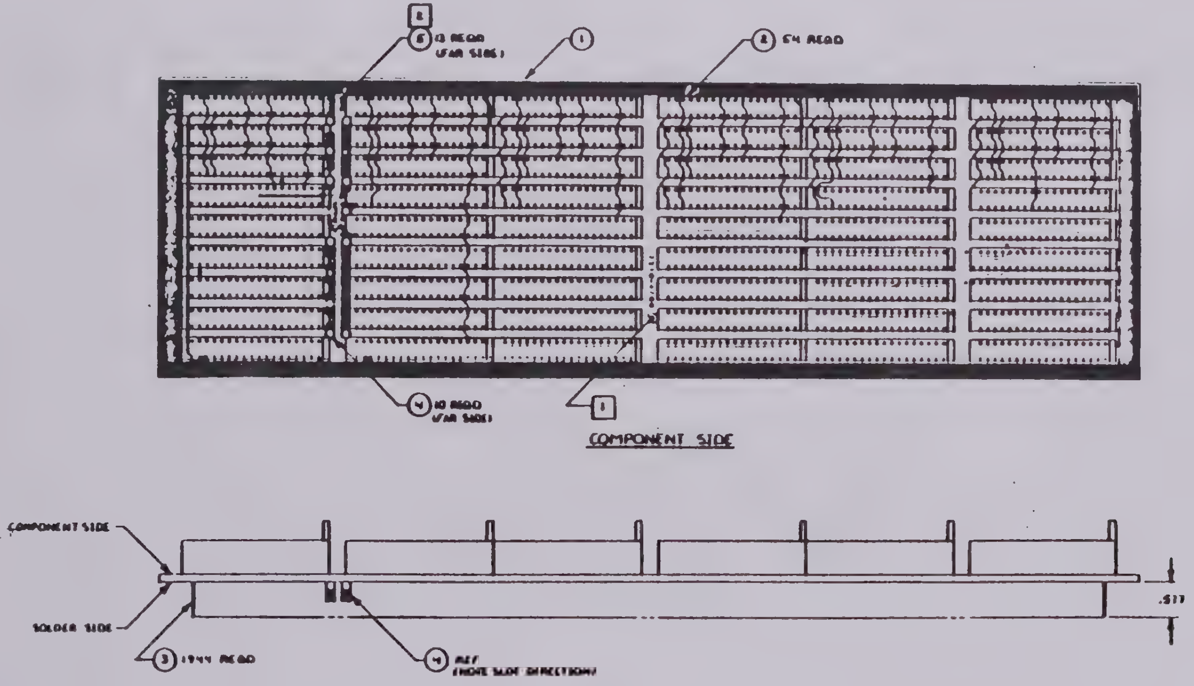
2510

SEE L/M
2510-2016 IL

D 2510-2016-1D

SCALE 1/1

	REVISIONS
1	RELEASED
2	TRACKING PER ECN 2456
3	ADDED NOTE 3 PER ECN 2711



1. MARK REV LEVEL USING .12 HIGH CHARACTERS, COLOR, YELLOW EPOXY INK, LOCATE APPROX. WHERE SHOWN.
2. WIRE WRAP PINS TO BE FLUSH WITH COMPONENT SIDE OF BOARD.
3. BACKPLANE ASSEMBLY TO BE WIREWRAPPED PER 2510-4700-4D WIRE LIST (APPROX 100 WIRES).

ITEM	PART NUMBER	QTY	NOMENCLATURE
5		13	WIRE WRAP PIN
4	1310 D 10SECO	10	TERMINAL
3	19011-09	1944	CONTACTOR
2	39117-20	54	HOUSING, 18/36 CONN
1	2510-0700	1	PCB, 2510 MICRO MODAL BACKPLANE
C	2510-4700-4D	REF	WIRE LIST
B	2510-4700 D	REF	ASSY DWG

LIST OF MATERIALS

GenRad

MOTHER BOARD ASSY
MICRO MODAL (BACKPLANE)
(2510)

C. ZIEGLER

2510

D 2510-4700 1D

GenRad

DR	C. ZIEGLER	DATE 1-23-81			DRAWING NO 2510-4700-4D	3
CHK					SHEET 1 OF 4	REV
APPD	[signature]	2/11/81			TITLE	
APPD			2510		WIRE LIST, MICRO MODAL BACKPLANE WIRE WRAP	
APPD			USED ON	NEXT ASSY		

SYM	REVISION DESCRIPTION	DATE	APPD	SYM	REVISION DESCRIPTION	DATE	APPD
1	INITIAL RELEASE	6 APRIL 81	A. VORA				
2	PER ECN 2456	6/15/81	S. [signature]				
3	PER ECN 2711 (TRACKING)	19 APR 83	A. VORA				

RECORD OF REVISION OF EACH SHEET

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
1	1	1	1																												
2	1	1	2																												
3	1	1	2																												

0000-0015 REV 1

SHEET 2 DWG 1/5/81

GenRad **WIRE LIST**

DWG. NO. 2510-4700-4D | REV 1

TITLE: WIRE LIST, MICRO MODAL BACKPLANE, WIRE LIST

STRING	L	PIN	L	PIN	L	PIN	L	PIN	COLOR	SIZE	REMARKS
QDAL0		2A2U		2C2U		2E2U					
QDAL1		2A2V		2C2V		2E2V					
QDAL2		2B2E		2D2E		2F2E					
QDAL3		2B2F		2D2F		2F2F					
QDAL4		2B2H		2D2H		2F2H					
QDAL5		2B2J		2D2J		2F2J					
QDAL6		2B2K		2D2K		2F2K					
QDAL7		2B2L		2D2L		2F2L					
QDAL8		2B2M		2D2M		2F2M					
QDAL9		2B2N		2D2N		2F2N					
QDAL10		2B2P		2D2P		2F2P					
QDAL11		2B2R		2D2R		2F2R					
QDAL12		2B2S		2D2S		2F2S					
QDAL13		2B2T		2D2T		2F2T					
QDAL14		2B2U		2D2U		2F2U					
QDAL15		2B2V		2D2V		2F2V					
QDAL16		2A1C		2C1C		2E1C					
QDAL17		2A1D		2C1D		2E1D					
QBS7		2A2P		2C2P		2E2P					
QDCOK		2B1A		2D1A		2F1A					[illegible]
QDIN		2A2H		2C2H		2E2H					
QDMR		2A1N		2C1N		2E1N					
QDOUT		2A2E		2C2E		2E2E					
QEVNT		2B1R		2D1R		2F1R					
QHALT		2A1P		2C1P		2E1P					
QINIT		2A2T		2C2T		2E2T					

0000-0000

SHEET 3 DWG 1/3/81

GenRad

WIRE LIST

DWG. NO. 2510-4700-40

REV 1

TITLE WIRE LIST, MICRO MODAL BACKPLANE WIRE WRAP

STRING	L	PIN	L	PIN	L	PIN	L	PIN	COLOR	SIZE	REMARKS
QIRQ4		2A2L		2C2L		2E2L					
QIRQ5		2A1A		2C1A		2E1A					
QIRQ6		2A1B		2C1B		2E1B					
QIRQ7		2B1P		2D1P		2F1P					
QPOK		2B1B		2D1B		2F1B					
QREF		2A1R		2C1R		2E1R					
QRPLY		2A2F		2C2F		2E2F					
QSACK		2B1N		2D1N		2F1N					
QSYNC		2A2J		2C2J		2E2J					
QWTBT		2A2K		2C2K		2E2K					
QDMGA		1A2S		1C2R							
QDMGB		1C2S		1E2R							
QDMGC		1E2S		2E2R							
QDMGD		2E2S		2C2R							
QDMGE		2C2S		2A2R							
QDMGF		2A2S		3A2R							
QDMGG		3A2S		3C2R							
QDMGH		3C2S		3E2R							
QIAKA		1A2N		1C2M							
QIAKB		1C2N		1E2M							
QIAKC		1E2N		2E2M							
QIAKD		2E2N		2C2M							
QIAKE		2C2N		2A2M							
QIAKF		2A2N		3A2M							
QIAKG		3A2N		3C2M							
QIAKH		3C2N		3E2M							

0000-0004

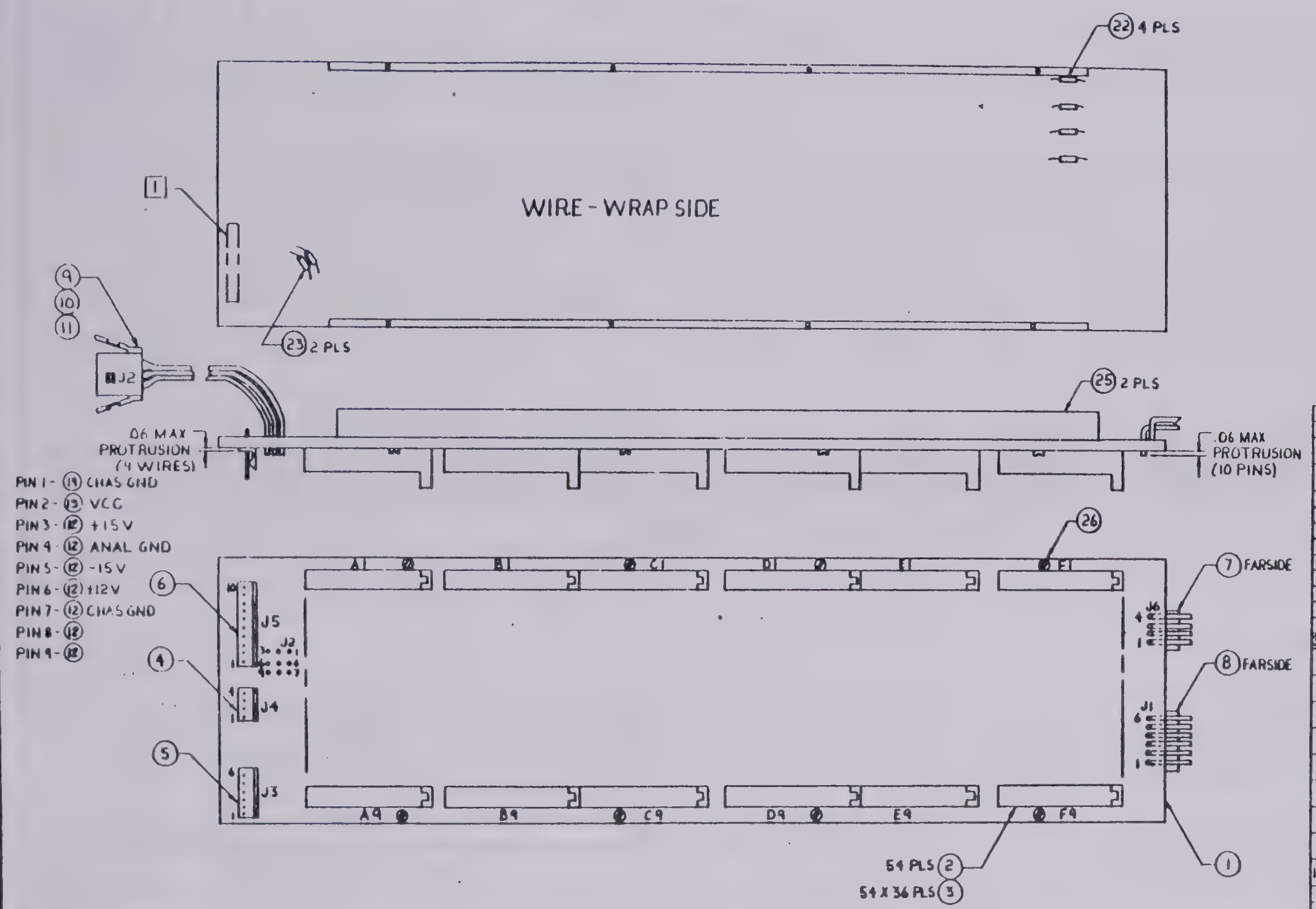
SHEET 4 DWS 1/5/81

GenRad | WIRE LIST | DWG. NO. 2510-4700-40 | 2

TITLE WIRE LIST, MICRO MODUL BACKPLANE WIRE WRAP | REV

STRING	L	PIN	L	PIN	L	PIN	L	PIN	COLOR	SIZE	REMARKS
BG4		4B2E		5E2S		5F2S					
BG5		4B1B		9B1B							
BG6		4B1A		9B1A							
BG7		4A1V		9A1V							
+5B		4B2A		4A2A							
UINITL		4A1A		5A1A							
BBG7		4D2K		4D2L							
BBG6		4D2M		4D2N							
BBG5		4D2P		4D2R							
BBG4		4D2S		4D2T							

0000-0030



QTY	PART NO	DESCRIPTION
8		SCREW, 4-40 X 3/8 MIN., PLASTIC FAN HD
2		STIFFENER, .13 X .50 X 14.38 ALUM
2	GE 1N914 OR EQUIV	DIODE, 1N914
4	ALLEN BRADLEY CB1005 OR EQUIV	RESISTOR, CARBON COMP, 10 OHM 5% 1/4 W
10 IN	MIL-W-16878	WIRE, TFL, 14 AWG, 19 STR 600 V RED
35 IN	MIL-W-16878	WIRE, TFL, 18 AWG, 7 STR, 600 V, WHT
2	AMP# 60617-1 OR EQUIV	CONTACT, .084 DIA FEMALE, 20 14 GA
7	AMP# 60617-1 OR EQUIV	CONTACT, .084 DIA FEMALE, 24 18 GA
1	AMP# 1-480274-0 OR EQUIV	CONN, 9 PIN, SOCKET HSG
1	AMP# 640389-6 OR EQUIV	CONN, 6 PIN, .156 CTRS PC MT RTANG
1	AMP# 640389-4 OR EQUIV	CONN, 4 PIN, .156 CTRS PC MT RTANG
1	AMP# 640388-0 OR EQUIV	CONN, 10 PIN, .156 CTRS PC MT STR
1	AMP# 640388-6 OR EQUIV	CONN, 6 PIN, .156 CTRS PC MT STR
1	AMP# 640388-4 OR EQUIV	CONN, 4 PIN, .156 CTRS PC MT STR
1944	CTI # 39011-09 (WIRE-WRAP)	CONTACTOR, PRESS-IN, .125 THK BOARD
54	CTI # 39011-29	HOUSING, CONNECTOR 18/36
1	2511-0700	PCB, BACKPLANE

1 RELEASED PER ECN # 2787

NOTES

1. [1] MARK P/N & LATEST REV IN .12 HIGH CHARACTERS.
2. FINISH ASSEMBLY SHALL MEET ACCEPTANCE STANDARDS OUTLINED IN GR # CSPC-BP01-01.
3. REFERENCE WIRE LIST 2515-2013-4D.

GenRad

ASSY. ADS BACKPLANE

D 2511-2013-1D

2511-3201 2511

GenRad

DR	GARY COOK	DATE 10-83			DRAWING NO 2511-2013-4D	1
CHK					SHEET 1 OF 23	REV
APPD					TITLE BACKPLANE WIRELIST, VCS ADS	
APPD						
APPD			USED ON	NEXT ASSY		

SYM	REVISION DESCRIPTION	DATE	APPD	SYM	REVISION DESCRIPTION	DATE	APPD
1	RELEASED PER ECN 2787	20 DEC 83	A. VORA				

RECORD OF REVISION OF EACH SHEET

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1									

SEQUENCE LIST GENRAD S3927F

PNT#	ID	X-CRD	Y-CRD	Z	BIN	DI	HIS	SRC#	SIGNALNAME	PIN NAME	WIRE	P	W
5	NS	8875	0	1	10	3	H S	2		C1-M1	1		
6	NE	9000	125	1	10	17		2		C1-L2			
7	NS	8875	2500	1	11	4	H S	3		C6-M1	2		
8	NE	8875	3000	1	11	17		3		C7-M1			
9	NS	8750	3000	1	11	4	S	4		C7-N1	3		
10	NE	8750	3500	1	11	17		4		C8-N1			
11	NS	8875	3500	1	11	4	S	5		C8-M1	4		
12	NE	8875	4000	1	11	17		5		C9-M1			
13	NS	8875	3625	1	11	4	S	6		C8-M2	5		
14	NE	8875	4125	1	11	17		6		C9-M2			
15	NS	8750	3625	1	11	4	S	7		C8-N2	6		
16	NE	8750	4125	1	11	17		7		C9-N2			
17	NS	8625	3625	1	11	4	S	8		C8-P2	7		
18	NE	8625	4125	1	11	17		8		C9-P2			
19	NS	8625	3500	1	11	4	S	9		C8-P1	8		
20	NE	8625	4000	1	11	17		9		C9-P1			
21	NS	8500	3625	1	11	4	S	10		C8-R2	9		
22	NE	8500	4125	1	11	17		10		C9-R2			
23	NS	8375	3625	1	11	4	S	11		C8-S2	10		
24	NE	8375	4125	1	11	17		11		C9-S2			
25	NS	8375	3500	1	11	4	S	12		C8-S1	11		
26	NE	8375	4000	1	11	17		12		C9-S1			
27	NS	8250	3625	1	11	4	S	13		C8-T2	12		
28	NE	8250	4125	1	11	17		13		C9-T2			
29	NS	8125	3500	1	11	4	S	14		C8-U1	13		
30	NE	8125	4000	1	11	17		14		C9-U1			
31	NS	8000	3625	1	11	4	S	15		C8-V2	14		
32	NE	8000	4125	1	11	17		15		C9-V2			
33	NS	8125	3125	1	11	4	S	16		C7-U2	15		
34	NE	8125	3625	1	11	17		16		C8-U2			
35	NS	8000	3000	1	11	4	S	17		C7-V1	16		
36	NE	8000	3500	1	11	17		17		C8-V1			
37	NS	7250	3625	1	11	4	S	18		D8-B2	17		
38	NE	7250	4125	1	11	17		18		D9-B2			
39	NS	6875	3625	1	11	4	S	19		D8-E2	18		
40	NE	6875	4125	1	11	17		19		D9-E2			
41	NS	6625	3625	1	11	4	S	20		D8-H2	19		
42	NE	6625	4125	1	11	17		20		D9-H2			
43	NS	6500	3625	1	11	4	S	21		D8-J2	20		
44	NE	6500	4125	1	11	17		21		D9-J2			
45	NS	6500	3000	1	11	4	S	22		D7-J1	21		
46	NE	6500	3500	1	11	17		22		D8-J1			
47	NS	6500	2625	1	11	4	S	23		D6-J2	22		
48	NE	6500	3125	1	11	17		23		D7-J2			
49	NS	6625	2625	1	11	4	S	24		D6-H2	23		
50	NE	6625	3125	1	11	17		24		D7-H2			
51	NS	6875	2625	1	11	4	S	25		D6-E2	24		
52	NE	6875	3125	1	11	17		25		D7-E2			
53	NS	7250	3000	1	11	4	S	26		D7-B1	25		
54	NE	7250	3500	1	11	17		26		D8-B1			
55	NS	7250	2625	1	11	4	S	27		D6-B2	26		
56	NE	7250	3125	1	11	17		27		D7-B2			
57	NS	8000	2625	1	11	4	S	28		C6-V2	27		
58	NE	8000	3125	1	11	17		28		C7-V2			
59	NS	8125	2500	1	11	4	S	29		C6-U1	28		

SEQUENCE LIST GENRAD S3927F

PNT#	ID	X-CRD	Y-CRD	Z	BIN	DI	HIS	SRC#	SIGNALNAME	PIN NAME	WIRE	P	W
60	NE	8125	3000	1	11	17		29		C7-U1			
61	NS	8250	2625	1	11	4	S	30		C6-T2	27		
62	NE	8250	3125	1	11	17		30		C7-T2			
63	NS	8375	2625	1	11	4	S	31		C6-S2	30		
64	NE	8375	3125	1	11	17		31		C7-S2			
65	NS	8375	2500	1	11	4	S	32		C6-S1	31		
66	NE	8375	3000	1	11	17		32		C7-S1			
67	NS	8500	2625	1	11	4	S	33		C6-R2	32		
68	NE	8500	3125	1	11	17		33		C7-R2			
69	NS	8625	2625	1	11	4	S	34		C6-P2	33		
70	NE	8625	3125	1	11	17		34		C7-P2			
71	NS	9125	3000	1	11	4	S	35		C7-K1	34		
72	NE	9125	3500	1	11	17		35		C8-K1			
73	NS	9250	3500	1	11	4	S	36		C8-J1	35		
74	NE	9250	4000	1	11	17		36		C9-J1			
75	NS	9125	3625	1	11	4	S	37		C8-K2	36		
76	NE	9125	4125	1	11	17		37		C9-K2			
77	NS	9375	3500	1	11	4	S	38		C8-H1	37		
78	NE	9375	4000	1	11	17		38		C9-H1			
79	NS	9625	3500	1	11	4	S	39		C8-E1	38		
80	NE	9625	4000	1	11	17		39		C9-E1			
81	NS	10000	3500	1	11	4	S	40		C8-B1	39		
82	NE	10000	4000	1	11	17		40		C9-B1			
83	NS	10000	2500	1	11	4	S	41		C6-B1	40		
84	NE	10000	3000	1	11	17		41		C7-B1			
85	NS	9625	2500	1	11	4	S	42		C6-E1	41		
86	NE	9625	3000	1	11	17		42		C7-E1			
87	NS	9375	2500	1	11	4	S	43		C6-H1	42		
88	NE	9375	3000	1	11	17		43		C7-H1			
89	NS	9250	2500	1	11	4	S	44		C6-J1	43		
90	NE	9250	3000	1	11	17		44		C7-J1			
91	NS	9125	2625	1	11	4	S	45		C6-K2	44		
92	NE	9125	3125	1	11	17		45		C7-K2			
93	NS	8875	2625	1	11	4	S	46		C6-M2	45		
94	NE	8875	3125	1	11	17		46		C7-M2			
95	NS	8750	2625	1	11	4	S	47		C6-N2	46		
96	NE	8750	3125	1	11	17		47		C7-N2			
97	NS	8625	2500	1	11	4	S	48		C6-P1	47		
98	NE	8625	3000	1	11	17		48		C7-P1			
99	NS	12525	625	1	11	5	S	49		B2-B2	48		
100	NE	12275	1000	1	11	17		49		B3-D1			
101	NS	1125	3000	1	11	4	S	50		F7-K1	49		
102	NE	1125	3500	1	11	17		50		F8-K1			
103	NS	13400	3625	1	11	4	S	51		A8-U2	50		
104	NE	13400	4125	1	11	17		51		A9-U2			
105	NS	12400	3500	1	11	4	S	52		B8-C1	51		
106	NE	12400	4000	1	11	17		52		B9-C1			
107	NS	12025	3500	1	11	4	S	53		B8-F1	52		
108	NE	12025	4000	1	11	17		53		B9-F1			
109	NS	11900	3500	1	11	4	S	54		B8-H1	53		
110	NE	11900	4000	1	11	17		54		B9-H1			
111	NS	11775	3500	1	11	4	S	55		B8-J1	54		
112	NE	11775	4000	1	11	17		55		B9-J1			
113	NS	11400	3500	1	11	4	S	56		B8-M1	55		
114	NE	11400	4000	1	11	17		56		B9-M1			

SEQUENCE LIST GENRAD S3927F

PNT#	ID	X-CRD	Y-CRD	Z	BIN	DI	HIS	SRC#	SIGNALNAME	PIN NAME	WIRE	P	W
115	NS	11275	3500	1	11	4		S 57		B8-N1	56		
116	NE	11275	4000	1	11	17		57		B9-N1			
117	NS	11150	3500	1	11	4		S 58		B8-P1	57		
118	NE	11150	4000	1	11	17		58		B9-P1			
119	NS	11025	3500	1	11	4		S 59		B8-R1	58		
120	NE	11025	4000	1	11	17		59		B9-R1			
121	NS	10900	3500	1	11	4		S 60		B8-S1	59		
122	NE	10900	4000	1	11	17		60		B9-S1			
123	NS	10650	3500	1	11	4		S 61		B8-U1	60		
124	NE	10650	4000	1	11	17		61		B9-U1			
125	NS	14900	3625	1	11	4		S 62		A8-E2	61		
126	NE	14900	4125	1	11	17		62		A9-E2			
127	NS	14650	3625	1	11	4		S 63		A8-H2	62		
128	NE	14650	4125	1	11	17		63		A9-H2			
129	NS	14400	3625	1	11	4		S 64		A8-K2	63		
130	NE	14400	4125	1	11	17		64		A9-K2			
131	NS	14275	3625	1	11	4		S 65		A8-L2	64		
132	NE	14275	4125	1	11	17		65		A9-L2			
133	NS	14150	3625	1	11	4		S 66		A8-M2	65		
134	NE	14150	4125	1	11	17		66		A9-M2			
135	NS	14025	3625	1	11	4		S 67		A8-N2	66		
136	NE	14025	4125	1	11	17		67		A9-N2			
137	NS	13900	3625	1	11	4		S 68		A8-P2	67		
138	NE	13900	4125	1	11	17		68		A9-P2			
139	NS	13775	3625	1	11	4		S 69		A8-R2	68		
140	NE	13775	4125	1	11	17		69		A9-R2			
141	NS	13650	3625	1	11	4		S 70		A8-S2	69		
142	NE	13650	4125	1	11	17		70		A9-S2			
143	NS	12525	3500	1	11	6		S 71		B8-B1	70		
144	NE	12150	3625	1	11	17		71		B8-E2			
145	NS	5250	500	1	11	4		S 72		D2-V1	71		
146	NE	5250	1000	1	11	17		72		D3-V1			
147	NS	11650	3625	1	11	4		S 73		B8-K2	72		
148	NE	11650	4125	1	11	17		73		B9-K2			
149	NS	11775	3625	1	11	4		S 74		B8-J2	73		
150	NE	11775	4125	1	11	17		74		B9-J2			
151	NS	11525	3625	1	11	4		S 75		B8-L2	74		
152	NE	11525	4125	1	11	17		75		B9-L2			
153	NS	13400	2625	1	11	4		S 76		A6-U2	75		
154	NE	13400	3000	1	11	17		76		A7-U1			
155	NS	11275	[illegible]	1	11	4		S 77		B8-N2	76		
156	NE	11275	4125	1	11	17		77		B9-N2			
157	NS	250	0	1	11	3		S 78		F1-T1	77		
158	NE	625	125	1	11	17		78		F1-P2			
159	NS	750	625	1	12	3	H	S 79		F2-N2	78		
160	NE	1250	1000	1	12	17		79		F3-J1			
161	NS	6125	625	1	12	4		S 80		D2-M2	79		
162	NE	6250	1125	1	12	17		80		D3-L2			
163	NS	2000	125	1	12	4		S 81		C1-V2	80		
164	NE	8125	625	1	12	17		81		C2-U2			
165	NS	6125	0	1	12	5		S 82		D1-M1	81		
166	NE	6000	625	1	12	17		82		D2-N2			
167	NS	13400	2500	1	12	5		S 83		A6-U1	82		
168	NE	13275	3000	1	12	17		83		A7-V1			
169	NS	13275	2625	1	12	3		S 84		A6-V2	83		

SEQUENCE LIST GENRAD S3927F

PNT#	ID	X-CRD	Y-CRD	Z	BIN	DI	HIS	SRC#	SIGNALNAME	PIN NAME	WIRE	P	W
170	NE	13775	3000	1	12	17		84		A7-R1			
171	NS	3375	625	1	12	4	S	85		E2-P2	84		
172	NE	3500	1125	1	12	17		85		E3-N2			
173	NS	1375	625	1	12	5	S	86		F2-H2	85		
174	NE	1000	1125	1	12	17		86		F3-L2			
175	NS	4500	625	1	13	6	H S	87		E2-D2	86		
176	NE	3750	1125	1	13	17		87		E3-L2			
177	NS	4375	625	1	13	6	S	88		E2-E2	87		
178	NE	3625	1125	1	13	17		88		E3-M2			
179	NS	4375	1500	1	13	3	S	89		E4-E1	88		
180	NE	5250	1625	1	13	17		89		D4-V2			
181	NS	1625	625	1	13	5	S	90		F2-E2	89		
182	NE	1375	1500	1	13	17		90		F4-H1			
183	NS	1125	625	1	13	5	S	91		F2-K2	90		
184	NE	750	1500	1	13	17		91		F4-N1			
185	NS	14650	500	1	13	6	S	92		A2-H1	91		
186	NE	13900	1125	1	13	17		92		A3-P2			
187	NS	1375	500	1	13	5	S	93		F2-H1	92		
188	NE	875	1125	1	13	17		93		F3-M2			
189	NS	9000	625	1	14	4	H S	94		C2-L2	93		
190	NE	9250	1625	1	14	17		94		C4-J2			
191	NS	9375	0	1	14	6	S	95		C1-H1	94		
192	NE	8250	0	1	14	17		95		C1-T1			
193	NS	1750	500	1	14	5	S	96		F2-D1	95		
194	NE	1125	1500	1	14	17		96		F4-K1			
195	NS	625	500	1	14	5	S	97		F2-P1	96		
196	NE	500	1625	1	14	17		97		F4-R2			
197	NS	3250	500	1	14	4	S	98		E2-R1	97		
198	NE	3500	1625	1	14	17		98		E4-N2			
199	NS	3375	500	1	14	3	S	99		E2-P1	98		
200	NE	4375	1125	1	14	17		99		E3-E2			
201	NS	8375	0	1	14	3	S	100		C1-S1	99		
202	NE	9375	625	1	14	17		100		C2-H2			
203	NS	4250	625	1	14	3	S	101		E2-F2	100		
204	NE	5250	1125	1	14	17		101		D3-V2			
205	NS	1625	500	1	14	6	S	102		F2-E1	101		
206	NE	750	1125	1	14	17		102		F3-N2			
207	NS	250	625	1	15	3	H S	103		F2-T2	102		
208	NE	1250	1500	1	15	17		103		F4-J1			
209	NS	1250	625	1	15	5	S	104		F2-J2	103		
210	NE	375	1625	1	15	17		104		F4-B2			
211	NS	4750	625	1	15	6	S	105		E2-B2	104		
212	NE	3500	1000	1	15	17		105		E3-N1			
213	NS	10650	125	1	15	6	S	106		B1-U2	105		
214	NE	9250	125	1	15	17		106		C1-J2			
215	NS	8625	125	1	15	3	S	107		C1-P2	106		
216	NE	10000	500	1	15	17		107		C2-B1			
217	NS	10525	0	1	15	4	S	108		B1-V1	107		
218	NE	10525	1500	1	15	17		108		B4-V1			
219	NS	10775	125	1	15	4	S	109		B1-T2	108		
220	NE	10775	1625	1	15	17		109		B4-T2			
221	NS	10775	0	1	15	4	S	110		B1-T1	109		
222	NE	10775	1500	1	15	17		110		B4-T1			
223	NS	11900	125	1	15	4	S	111		B1-H2	110		
224	NE	11900	1625	1	15	17		111		B4-H2			

SEQUENCE LIST GENRAD S3927F

PNT#	ID	X-CRD	Y-CRD	Z	BIN	DI	HIS	SRC#	SIGNALNAME	PIN NAME	WIRE	P	W
225	NS	12275	0	1	15	4	S	112		B1-D1	111		
226	NE	12275	1500	1	15	17		112		B4-D1			
227	NS	12400	0	1	15	4	S	113		B1-C1	112		
228	NE	12400	1500	1	15	17		113		B4-C1			
229	NS	12525	125	1	15	4	S	114		B1-B2	113		
230	NE	12525	1625	1	15	17		114		B4-B2			
231	NS	12525	0	1	15	4	S	115		B1-B1	114		
232	NE	12525	1500	1	15	17		115		B4-B1			
233	NS	13275	0	1	15	4	S	116		A1-V1	115		
234	NE	13275	1500	1	15	17		116		A4-V1			
235	NS	13525	125	1	15	4	S	117		A1-T2	116		
236	NE	13525	1625	1	15	17		117		A4-T2			
237	NS	13650	125	1	15	4	S	118		A1-S2	117		
238	NE	13650	1625	1	15	17		118		A4-S2			
239	NS	13525	0	1	15	4	S	119		A1-T1	118		
240	NE	13525	1500	1	15	17		119		A4-T1			
241	NS	13775	0	1	15	4	S	120		A1-R1	119		
242	NE	13775	1500	1	15	17		120		A4-R1			
243	NS	14025	125	1	15	4	S	121		A1-N2	120		
244	NE	14025	1625	1	15	17		121		A4-N2			
245	NS	14150	125	1	15	4	S	122		A1-M2	121		
246	NE	14150	1625	1	15	17		122		A4-M2			
247	NS	14275	125	1	15	4	S	123		A1-L2	122		
248	NE	14275	1625	1	15	17		123		A4-L2			
249	NS	14400	125	1	15	4	S	124		A1-K2	123		
250	NE	14400	1625	1	15	17		124		A4-K2			
251	NS	14400	0	1	15	4	S	125		A1-K1	124		
252	NE	14400	1500	1	15	17		125		A4-K1			
253	NS	14525	125	1	15	4	S	126		A1-J2	125		
254	NE	14525	1625	1	15	17		126		A4-J2			
255	NS	14525	0	1	15	4	S	127		A1-J1	126		
256	NE	14525	1500	1	15	17		127		A4-J1			
257	NS	14650	125	1	15	4	S	128		A1-H2	127		
258	NE	14650	1625	1	15	17		128		A4-H2			
259	NS	14650	0	1	15	4	S	129		A1-H1	128		
260	NE	14650	1500	1	15	17		129		A4-H1			
261	NS	14775	125	1	15	4	S	130		A1-F2	129		
262	NE	14775	1625	1	15	17		130		A4-F2			
263	NS	14775	0	1	15	4	S	131		A1-F1	130		
264	NE	14775	1500	1	15	17		131		A4-F1			
265	NS	14900	125	1	15	4	S	132		A1-E2	131		
266	NE	14900	1625	1	15	17		132		A4-E2			
267	NS	14900	0	1	15	4	S	133		A1-E1	132		
268	NE	14900	1500	1	15	17		133		A4-E1			
269	NS	15025	125	1	15	4	S	134		A1-D2	133		
270	NE	15025	1625	1	15	17		134		A4-D2			
271	NS	15025	0	1	15	4	S	135		A1-D1	134		
272	NE	15025	1500	1	15	17		135		A4-D1			
273	NS	15150	0	1	15	4	S	136		A1-C1	135		
274	NE	15150	1500	1	15	17		136		A4-C1			
275	NS	15275	125	1	15	4	S	137		A1-B2	136		
276	NE	15275	1625	1	15	17		137		A4-B2			
277	NS	15275	0	1	15	4	S	138		A1-B1	137		
278	NE	15275	1500	1	15	17		138		A4-B1			
279	NS	15400	125	1	15	4	S	139		A1-A2	138		

SEQUENCE LIST GENRAN S3927F

PNT#	ID	X-CRD	Y-CRD	Z	BIN	DI	HIS	SRC#	SIGNALNAME	PIN NAME	WIRE	P	W
280	NE	15400	1625	1	15	17		139		A4-A2			
281	NS	15400	0	1	15	4	S	140		A1-A1	139		
282	NE	15400	1500	1	15	17		140		A4-A1			
283	NS	14275	0	1	15	4	S	141		A1-L1	140		
284	NE	14275	1500	1	15	17		141		A4-L1			
285	NS	14025	0	1	15	4	S	142		A1-N1	141		
286	NE	14025	1500	1	15	17		142		A4-N1			
287	NS	2000	625	1	15	6	S	143		F2-B2	142		
288	NE	625	1125	1	15	17		143		F3-P2			
289	NS	13900	0	1	15	4	S	144		A1-P1	143		
290	NE	13900	1500	1	15	17		144		A4-P1			
291	NS	13650	0	1	15	4	S	145		A1-S1	144		
292	NE	13650	1500	1	15	17		145		A4-S1			
293	NS	13275	125	1	15	4	S	146		A1-V2	145		
294	NE	13275	1625	1	15	17		146		A4-V2			
295	NS	12650	125	1	15	4	S	147		B1-A2	146		
296	NE	12650	1625	1	15	17		147		B4-A2			
297	NS	12650	0	1	15	4	S	148		B1-A1	147		
298	NE	12650	1500	1	15	17		148		B4-A1			
299	NS	12400	125	1	15	4	S	149		B1-C2	148		
300	NE	12400	1625	1	15	17		149		B4-C2			
301	NS	12025	125	1	15	4	S	150		B1-F2	149		
302	NE	12025	1625	1	15	17		150		B4-F2			
303	NS	12025	0	1	15	4	S	151		B1-F1	150		
304	NE	12025	1500	1	15	17		151		B4-F1			
305	NS	12150	0	1	15	4	S	152		B1-E1	151		
306	NE	12150	1500	1	15	17		152		B4-E1			
307	NS	10525	125	1	15	4	S	153		B1-V2	152		
308	NE	10525	1625	1	15	17		153		B4-V2			
309	NS	14150	0	1	15	4	S	154		A1-M1	153		
310	NE	14150	1500	1	15	17		154		A4-M1			
311	NS	15150	125	1	15	4	S	155		A1-C2	154		
312	NE	15150	1625	1	15	17		155		A4-C2			
313	NS	2000	500	1	15	4	S	156		F2-B1	155		
314	NE	2750	1625	1	15	17		156		E4-V2			
315	NS	6375	1000	1	16	4	H S	157		D3-K1	156		
316	NE	6500	2500	1	16	17		157		D6-J1			
317	NS	8125	1125	1	16	4	S	158		C3-U2	157		
318	NE	8750	2500	1	16	17		158		C6-N1			
319	NS	10525	625	1	16	3	S	159		B2-V2	158		
320	NE	12025	1125	1	16	17		159		B3-F2			
321	NS	14775	1000	1	16	5	S	160		A3-F1	159		
322	NE	14150	2500	1	16	17		160		A6-M1			
323	NS	14150	1125	1	16	4	S	161		A3-M2	160		
324	NE	15025	2500	1	16	17		161		A6-D1			
325	NS	13275	625	1	16	6	S	162		A2-V2	161		
326	NE	11650	1125	1	16	17		162		B3-K2			
327	NS	7000	1000	1	16	3	S	163		D3-D1	162		
328	NE	8625	1625	1	16	17		163		C4-P2			
329	NS	4250	500	1	16	6	S	164		E2-F1	163		
330	NE	2750	1000	1	16	17		164		E3-V1			
331	NS	4375	125	1	16	3	S	165		E1-E2	164		
332	NE	5625	1125	1	16	17		165		D3-S2			
333	NS	13775	1000	1	16	4	S	166		A3-R1	165		
334	NE	14400	2500	1	16	17		166		A6-K1			

SEQUENCE LIST GENRAD S3927F

PNT#	ID	X-CRD	Y-CRD	Z	BIN	DI	HIS	SRC#	SIGNALNAME	PIN NAME	WIRE	P	W
335	NS	8500	625	1	17	6	H S	167		C2-R2	166		
336	NE	6750	1000	1	17	17		167		D3-F1			
337	NS	9250	1125	1	17	5	S	168		C3-J2	167		
338	NE	8125	2625	1	17	17		168		C6-U2			
339	NS	14025	1125	1	17	4	S	169		A3-N2	168		
340	NE	15275	2500	1	17	17		169		A6-B1			
341	NS	14650	1000	1	17	5	S	170		A3-H1	169		
342	NE	13525	2625	1	17	17		170		A6-T2			
343	NS	7250	625	1	17	3	S	171		D2-B2	170		
344	NE	8875	1625	1	17	17		171		C4-M2			
345	NS	13275	1000	1	17	4	S	172		A3-V1	171		
346	NE	14275	2625	1	17	17		172		A6-L2			
347	NS	14150	1000	1	17	4	S	173		A3-M1	172		
348	NE	15400	2500	1	17	17		173		A6-A1			
349	NS	14650	1125	1	17	5	S	174		A3-H2	173		
350	NE	13650	2625	1	17	17		174		A6-B2			
351	NS	4125	500	1	20	3	H S	175		E2-H1	174		
352	NE	6250	1000	1	20	17		175		D3-L1			
353	NS	3250	625	1	20	3	S	176		E2-R2	175		
354	NE	5375	1125	1	20	17		176		D3-U2			
355	NS	625	625	1	20	3	S	177		F2-P2	176		
356	NE	2750	1125	1	20	17		177		E3-V2			
357	NS	6375	1125	1	20	3	S	178		D3-K2	177		
358	NE	8500	1625	1	20	17		178		C4-R2			
359	NS	8000	625	1	20	3	S	179		C2-V2	178		
360	NE	10000	1625	1	20	17		179		C4-B2			
361	NS	6000	2500	1	20	3	S	180		C6-V1	179		
362	NE	10125	2625	1	20	17		180		C6-A2			
363	NS	3875	1500	1	20	3	S	181		E4-K1	180		
364	NE	6000	1625	1	20	17		181		D4-N2			
365	NS	3750	125	1	20	3	S	182		E1-L2	181		
366	NE	5625	1000	1	20	17		182		D3-S1			
367	NS	8125	125	1	20	6	S	193		C1-U2	182		
368	NE	6125	500	1	20	17		183		D2-M1			
369	NS	9250	0	1	20	6	S	184		C1-J1	183		
370	NE	7250	500	1	20	17		184		D2-B1			
371	NS	2750	625	1	20	3	S	463		E2-V2	184		
372	NE	4625	1500	1	20	17		463		E4-C1			
373	NS	6250	1625	1	21	6	H S	185		D4-L2	185		
374	NE	3875	1625	1	21	17		185		E4-K2			
375	NS	3875	500	1	21	6	S	186		E2-K1	186		
376	NE	1625	1000	1	21	17		186		F3-E1			
377	NS	3625	500	1	21	6	S	187		E2-M1	187		
378	NE	1375	1125	1	21	17		187		F3-H2			
379	NS	3125	625	1	21	3	S	188		E2-S2	188		
380	NE	5500	1125	1	21	17		188		D3-T2			
381	NS	8375	125	1	21	6	S	189		C1-S2	189		
382	NE	6000	500	1	21	17		189		D2-N1			
383	NS	7250	1000	1	21	3	S	190		D3-B1	190		
384	NE	9125	2500	1	21	17		190		C6-K1			
385	NS	1000	625	1	21	3	S	191		F2-L2	191		
386	NE	3250	1625	1	21	17		191		E4-R2			
387	NS	5875	625	1	21	6	S	192		D2-P2	192		
388	NE	3625	1000	1	21	17		192		E3-M1			
389	NS	7000	1500	1	21	6	S	193		D4-D1	193		

SEQUENCE LIST GENRAD S3927F

PNT#	ID	X-CRD	Y-CRD	Z	BIN	DI	HIS	SRC#	SIGNALNAME	PIN NAME	WIRE	P	W
390	NE	4750	1500	1	21	17		193		E4-B1			
391	NS	2750	500	1	21	3	S	462		E2-V1	194		
392	NE	4750	1625	1	21	17		462		E4-B2			
393	NS	11150	625	1	22	6	H S	194		B2-P2	195		
394	NE	8625	1000	1	22	17		194		C3-P1			
395	NS	14525	625	1	22	6	S	195		A2-J2	196		
396	NE	11900	1125	1	22	17		195		B3-H2			
397	NS	12400	3125	1	22	3	S	196		B7-C2	197		
398	NE	14900	3500	1	22	17		196		A8-E1			
399	NS	8750	0	1	22	3	S	197		C1-N1	198		
400	NE	11275	625	1	22	17		197		B2-N2			
401	NS	11900	0	1	23	6	H S	198		B1-H1	199		
402	NE	9125	0	1	23	17		198		C1-K1			
403	NS	11650	125	1	23	6	S	199		B1-K2	200		
404	NE	8750	125	1	23	17		199		C1-N2			
405	NS	6875	1125	1	23	3	S	200		D3-E2	201		
406	NE	9625	1625	1	23	17		200		C4-E2			
407	NS	1625	125	1	23	3	S	201		F1-E2	202		
408	NE	4125	1625	1	23	17		201		E4-H2			
409	NS	875	125	1	23	3	S	202		F1-M2	203		
410	NE	3500	1500	1	23	17		202		E4-N1			
411	NS	9750	1000	1	23	3	S	203		C3-D1	204		
412	NE	11775	3000	1	23	17		203		B7-J1			
413	NS	13650	1000	1	23	6	S	204		A3-S1	205		
414	NE	11650	3000	1	23	17		204		B7-K1			
415	NS	1875	500	1	23	3	S	464		F2-C1	206		
416	NE	4500	1500	1	23	17		464		E4-D1			
417	NS	11650	0	1	24	6	H S	205		B1-K1	207		
418	NE	8625	0	1	24	17		205		C1-P1			
419	NS	6500	1625	1	24	6	S	206		D4-J2	208		
420	NE	3375	1625	1	24	17		206		E4-P2			
421	NS	0	625	1	24	3	S	207		F2-V2	209		
422	NE	3125	1500	1	24	17		207		E4-S1			
423	NS	3625	125	1	24	3	S	208		E1-M2	210		
424	NE	6625	1125	1	24	17		208		D3-H2			
425	NS	5750	1000	1	24	3	S	209		D3-R1	211		
426	NE	8500	2500	1	24	17		209		C6-R1			
427	NS	3125	125	1	24	3	S	210		E1-S2	212		
428	NE	6125	1125	1	24	17		210		D3-M2			
429	NS	6750	1500	1	24	6	S	211		D4-F1	213		
430	NE	3625	1625	1	24	17		211		E4-M2			
431	NS	9500	1000	1	24	3	S	212		C3-F1	214		
432	NE	11900	3000	1	24	17		212		B7-H1			
433	NS	9625	1000	1	24	3	S	213		C3-E1	215		
434	NE	11775	3125	1	24	17		213		B7-J2			
435	NS	9500	1125	1	24	3	S	214		C3-F2	216		
436	NE	11900	3125	1	24	17		214		B7-H2			
437	NS	14900	3000	1	24	6	S	215		A7-E1	217		
438	NE	11900	3625	1	24	17		215		B8-H2			
439	NS	11775	0	1	25	6	H S	216		B1-J1	218		
440	NE	8500	0	1	25	17		216		C1-R1			
441	NS	9625	0	1	25	6	S	217		C1-E1	219		
442	NE	6375	500	1	25	17		217		D2-K1			
443	NS	7375	1500	1	25	6	S	218		D4-A1	220		
444	NE	4000	1500	1	25	17		218		E4-J1			

SEQUENCE LIST GENRAD S3927F

PNT#	ID	X-CRD	Y-CRD	Z	BIN	DI	HIS	SRC#	SIGNALNAME	PIN NAME	WIRE	P	W
445	NS	1125	125	1	25	3	S	219		F1-K2	221		
446	NE	4125	1500	1	25	17		219		E4-H1			
447	NS	3875	1000	1	25	6	S	220		E3-K1	222		
448	NE	1250	3000	1	25	17		220		F7-J1			
449	NS	3750	1125	1	25	3	S	221		D3-R2	223		
450	NE	8500	3000	1	25	17		221		C7-R1			
451	NS	11775	625	1	25	6	S	222		B2-J2	224		
452	NE	8500	1000	1	25	17		222		C3-R1			
453	NS	6000	1125	1	25	3	S	223		D3-N2	225		
454	NE	8500	3500	1	25	17		223		C8-R1			
455	NS	8000	0	1	25	3	S	224		C1-V1	226		
456	NE	11400	125	1	25	17		224		B1-M2			
457	NS	6375	0	1	25	3	S	225		D1-K1	227		
458	NE	9625	625	1	25	17		225		C2-E2			
459	NS	14275	1125	1	25	6	S	226		A3-L2	228		
460	NE	11400	3000	1	25	17		226		B7-M1			
461	NS	15150	3000	1	25	6	S	227		A7-C1	229		
462	NE	11900	4125	1	25	17		227		B9-H2			
463	NS	3500	500	1	26	3	H S	228		E2-N1	230		
464	NE	6375	2625	1	26	17		228		D6-K2			
465	NS	375	125	1	26	3	S	229		F1-S2	231		
466	NE	3625	1500	1	26	17		229		E4-M1			
467	NS	6500	500	1	26	6	S	230		D2-J1	232		
468	NE	3125	1625	1	26	17		230		E4-S2			
469	NS	4000	1125	1	26	6	S	231		E3-J2	233		
470	NE	1250	3500	1	26	17		231		F8-J1			
471	NS	750	500	1	26	3	S	232		F2-N1	234		
472	NE	4375	1000	1	26	17		232		E3-E1			
473	NS	2875	500	1	26	3	S	233		E2-U1	235		
474	NE	6500	1125	1	26	17		233		D3-J2			
475	NS	3250	125	1	26	3	S	234		E1-R2	236		
476	NE	6875	1000	1	26	17		234		D3-E1			
477	NS	10000	0	1	26	3	S	235		C1-B1	237		
478	NE	13525	1125	1	26	17		235		A3-T2			
479	NS	11650	4000	1	26	6	S	236		B9-K1	238		
480	NE	8125	4125	1	26	17		236		C9-U2			
481	NS	14400	1000	1	26	6	S	237		A3-K1	239		
482	NE	11400	3125	1	26	17		237		B7-M2			
483	NS	14400	1125	1	26	6	S	238		A3-K2	240		
484	NE	11275	3125	1	26	17		238		B7-N2			
485	NS	10775	1125	1	27	6	H S	239		B3-T2	241		
486	NE	7250	2500	1	27	17		239		D6-B1			
487	NS	6500	625	1	27	6	S	240		D2-J2	242		
488	NE	2875	1625	1	27	17		240		E4-U2			
489	NS	4875	500	1	27	6	S	241		E2-A1	243		
490	NE	1125	1125	1	27	17		241		F3-K2			
491	NS	3750	625	1	27	4	S	242		E2-L2	244		
492	NE	6375	3625	1	27	17		242		D8-K2			
493	NS	3875	1000	1	27	4	S	243		D3-P1	245		
494	NE	8500	4000	1	27	17		243		C9-R1			
495	NS	4000	1000	1	30	5	H S	244		E3-J1	246		
496	NE	1250	4000	1	30	17		244		F9-J1			
497	NS	11400	0	1	30	6	S	245		B1-M1	247		
498	NE	7250	125	1	30	17		245		D1-B2			
499	NS	10525	1125	1	30	3	S	246		B3-V2	248		

SEQUENCE LIST GENRAT S3927F

PNT#	ID	X-CRD	Y-CRD	Z	BIN	DI	HIS	SRC#	SIGNALNAME	PIN NAME	WIRE	P	W
500	NE	14525	2500	1	30	17		246		A6-J1			
501	NS	8500	1125	1	30	3	S	247		C3-R2	249		
502	NE	12150	3000	1	30	17		247		B7-E1			
503	NS	14525	1000	1	30	6	S	248		A3-J1	250		
504	NE	10900	3125	1	30	17		248		B7-S2			
505	NS	10900	0	1	31	6	H S	249		B1-S1	251		
506	NE	6500	0	1	31	17		249		D1-J1			
507	NS	7000	0	1	31	3	S	250		D1-D1	252		
508	NE	11275	125	1	31	17		250		B1-N2			
509	NS	4125	625	1	31	3	S	251		E2-H2	253		
510	NE	8375	1125	1	31	17		251		C3-S2			
511	NS	8375	1000	1	31	3	S	252		C3-S1	254		
512	NE	12150	3125	1	31	17		252		B7-E2			
513	NS	11275	0	1	32	6	H S	253		B1-N1	255		
514	NE	6750	0	1	32	17		253		D1-F1			
515	NS	6250	0	1	32	3	S	254		D1-L1	256		
516	NE	10900	125	1	32	17		254		B1-S2			
517	NS	11525	0	1	32	6	S	255		B1-L1	257		
518	NE	6875	125	1	32	17		255		D1-E2			
519	NS	9125	1125	1	32	3	S	256		C3-K2	258		
520	NE	13650	2500	1	32	17		256		A6-S1			
521	NS	10650	1125	1	32	3	S	257		B3-U2	259		
522	NE	15150	2500	1	32	17		257		A6-C1			
523	NS	8500	125	1	32	6	S	258		C1-R2	260		
524	NE	3875	625	1	32	17		258		E2-K2			
525	NS	9375	1125	1	33	3	H S	259		C3-H2	261		
526	NE	13900	2625	1	33	17		259		A6-P2			
527	NS	11150	0	1	33	6	S	260		B1-P1	262		
528	NE	6375	125	1	33	17		260		D1-K2			
529	NS	1375	125	1	33	3	S	261		F1-H2	263		
530	NE	6125	1000	1	33	17		261		D3-M1			
531	NS	11525	125	1	33	6	S	262		B1-L2	264		
532	NE	6625	125	1	33	17		262		D1-H2			
533	NS	8875	1125	1	33	6	S	263		C3-M2	265		
534	NE	4000	1625	1	33	17		263		E4-J2			
535	NS	6750	125	1	33	3	S	264		D1-F2	266		
536	NE	11650	625	1	33	17		264		B2-K2			
537	NS	375	1500	1	33	3	S	265		F4-S1	267		
538	NE	5375	1625	1	33	17		265		D4-U2			
539	NS	11150	125	1	34	6	H S	266		B1-P2	268		
540	NE	6125	125	1	34	17		266		D1-M2			
541	NS	13900	2500	1	34	6	S	267		A6-P1	269		
542	NE	9125	4000	1	34	17		267		C9-K1			
543	NS	6000	0	1	34	3	S	268		D1-N1	270		
544	NE	11025	125	1	34	17		268		B1-R2			
545	NS	500	1500	1	34	3	S	269		F4-R1	271		
546	NE	5625	1625	1	34	17		269		D4-S2			
547	NS	3000	625	1	34	3	S	270		E2-T2	272		
548	NE	8125	1625	1	34	17		270		C4-U2			
549	NS	11025	0	1	35	6	H S	271		B1-R1	273		
550	NE	5750	0	1	35	17		271		D1-R1			
551	NS	11775	125	1	35	6	S	272		B1-J2	274		
552	NE	6500	125	1	35	17		272		D1-J2			
553	NS	8875	125	1	35	6	S	273		C1-M2	275		
554	NE	3625	625	1	35	17		273		E2-M2			

SEQUENCE LIST GENRAD S3927F

PNT#	ID	X-CRD	Y-CRD	Z	BIN	DI	HIS	SRC#	SIGNALNAME	PIN NAME	WIRE	P	W
555	NS	9625	125	1	36	6	H S	274		C1-E2	276		
556	NE	4000	625	1	36	17		274		E2-J2			
557	NS	6375	625	1	37	6	H S	275		D2-K2	277		
558	NE	625	1500	1	37	17		275		F4-P1			
559	NS	8125	0	1	37	3	S	276		C1-U1	278		
560	NE	14025	625	1	37	17		276		A2-N2			
561	NS	14775	2500	1	40	6	H S	283		A6-F1	279		
562	NE	8750	4000	1	40	17		283		C9-N1			
563	NS	8000	1000	1	40	3	S	284		C3-V1	280		
564	NE	13900	3000	1	40	17		284		A7-P1			
565	NS	8125	1000	1	40	3	S	285		C3-U1	281		
566	NE	14025	3000	1	40	17		285		A7-N1			
567	NS	7000	125	1	41	3	H S	286		D1-D2	282		
568	NE	13400	625	1	41	17		286		A2-U2			
569	NS	9750	0	1	41	6	S	287		C1-D1	283		
570	NE	3500	625	1	41	17		287		E2-N2			
571	NS	10650	0	1	42	6	H S	288		B1-U1	284		
572	NE	4125	0	1	42	17		288		E1-H1			
573	NS	0	500	1	42	3	S	289		F2-V1	285		
574	NE	6500	1000	1	42	17		289		D3-J1			
575	NS	8750	625	1	42	3	S	290		C2-N2	286		
576	NE	13400	1000	1	42	17		290		A3-A1			
577	NS	125	1500	1	42	3	S	291		F4-U1	287		
578	NE	6875	1625	1	42	17		291		D4-E2			
579	NS	5375	0	1	43	3	H S	292		D1-U1	288		
580	NE	12275	125	1	43	17		292		B1-D2			
581	NS	7250	0	1	43	3	S	293		D1-B1	289		
582	NE	14150	625	1	43	17		293		A2-M2			
583	NS	0	1500	1	44	3	H S	294		F4-V1	290		
584	NE	7250	1625	1	44	17		294		D4-B2			
585	NS	10775	625	1	45	6	H S	295		B2-T2	291		
586	NE	3375	1500	1	45	17		295		E4-P1			
587	NS	11775	1125	1	45	6	S	296		B3-J2	292		
588	NE	4375	1625	1	45	17		296		E4-E2			
589	NS	7250	4000	1	45	3	S	297		D9-B1	293		
590	NE	14525	4125	1	45	17		297		A9-J2			
591	NS	4750	125	1	46	3	H S	298		E1-B2	294		
592	NE	12150	1625	1	46	17		298		B4-E2			
593	NS	6875	0	1	46	3	S	299		D1-E1	295		
594	NE	14400	625	1	46	17		299		A2-K2			
595	NS	3000	1125	1	46	3	S	300		E3-T2	296		
596	NE	10525	2625	1	46	17		300		B6-V2			
597	NS	5625	0	1	46	3	S	301		D1-H1	297		
598	NE	14275	625	1	46	17		301		A2-L2			
599	NS	11025	625	1	47	6	H S	302		B2-R2	298		
600	NE	3250	1500	1	47	17		302		E4-R1			
601	NS	5625	125	1	47	3	S	303		D1-S2	299		
602	NE	13400	1500	1	47	17		303		A4-U1			
603	NS	750	125	1	47	3	S	304		F1-N2	300		
604	NE	8625	625	1	47	17		304		C2-P2			
605	NS	2875	1125	1	47	3	S	305		E3-U2	301		
606	NE	10650	2625	1	47	17		305		B6-U2			
607	NS	3125	1125	1	47	3	S	306		E3-S2	302		
608	NE	10775	2625	1	47	17		306		B6-T2			
609	NS	3125	1000	1	50	3	H S	307		E3-S1	303		

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PNT#	ID	X-CRD	Y-CRD	Z	BIN	DI	HIS	SRC#	SIGNALNAME	PIN NAME	WIRE	P	W
610	NE	11025	2625	1	50	17		307		B6-R2			
611	NS	13400	125	1	50	6	S	308		A1-U2	304		
612	NE	5250	125	1	50	17		308		D1-V2			
613	NS	1250	500	1	50	3	S	309		F2-J1	305		
614	NE	9375	1625	1	50	17		309		C4-H2			
615	NS	5875	1125	1	51	3	H S	310		D3-P2	306		
616	NE	14025	2500	1	51	17		310		A6-N1			
617	NS	6250	125	1	52	3	H S	311		D1-L2	307		
618	NE	14900	625	1	52	17		311		A2-E2			
619	NS	4500	1000	1	52	3	S	312		E3-D1	308		
620	NE	12650	3500	1	52	17		312		B8-A1			
621	NS	10000	125	1	53	6	H S	313		C1-B2	309		
622	NE	1250	1125	1	53	17		313		F3-J2			
623	NS	5875	0	1	54	3	H S	314		D1-P1	310		
624	NE	14900	500	1	54	17		314		A2-E1			
625	NS	6000	125	1	54	3	S	315		D1-N2	311		
626	NE	15025	500	1	54	17		315		A2-D1			
627	NS	5625	0	1	54	3	S	316		D1-S1	312		
628	NE	14650	625	1	54	17		316		A2-H2			
629	NS	5875	500	1	54	3	S	317		D2-P1	313		
630	NE	14400	3500	1	54	17		317		A8-K1			
631	NS	3875	125	1	55	3	H S	318		E1-K2	314		
632	NE	13275	1125	1	55	17		318		A3-V2			
633	NS	5750	500	1	55	3	S	319		D2-R1	315		
634	NE	14525	4000	1	55	17		319		A9-J1			
635	NS	5625	500	1	55	3	S	320		D2-S1	316		
636	NE	14400	4000	1	55	17		320		A9-K1			
637	NS	4250	1000	1	55	3	S	321		E3-F1	317		
638	NE	13275	3500	1	55	17		321		A8-V1			
639	NS	5750	625	1	55	3	S	322		D2-R2	318		
640	NE	14775	3500	1	55	17		322		A8-F1			
641	NS	5625	625	1	55	3	S	323		D2-S2	319		
642	NE	14650	3500	1	55	17		323		A8-H1			
643	NS	5500	625	1	55	3	S	324		D2-T2	320		
644	NE	14525	3500	1	55	17		324		A8-J1			
645	NS	13775	125	1	56	6	H S	325		A1-R2	321		
646	NE	4125	125	1	56	17		325		E1-H2			
647	NS	13400	0	1	56	6	S	326		A1-U1	322		
648	NE	3875	0	1	56	17		326		E1-K1			
649	NS	4125	1000	1	56	3	S	327		E3-H1	323		
650	NE	13400	3500	1	56	17		327		A8-U1			
651	NS	3625	0	1	57	3	H S	328		E1-M1	324		
652	NE	13400	1000	1	57	17		328		A3-U1			
653	NS	3500	0	1	57	3	S	329		E1-N1	325		
654	NE	13400	1125	1	57	17		329		A3-U2			
655	NS	5375	625	1	57	3	S	330		D2-U2	326		
656	NE	14650	4000	1	57	17		330		A9-H1			
657	NS	1625	1125	1	57	3	S	331		F3-E2	327		
658	NE	11275	3000	1	57	17		331		B7-N1			
659	NS	10900	625	1	60	6	H S	332		B2-S2	328		
660	NE	875	1500	1	60	17		332		F4-M1			
661	NS	1125	1000	1	60	3	S	333		F3-K1	329		
662	NE	11150	2625	1	60	17		333		B6-P2			
663	NS	5250	625	1	60	3	S	334		D2-V2	330		
664	NE	14775	4000	1	60	17		334		A9-F1			

SEQUENCE LIST GENRAD S3927F

PNT#	ID	X-CRD	Y-CRD	Z	BIN	DI	HIS	SRC#	SIGNALNAME	PIN NAME	WIRE	P	W
830	NE	6375	3125	2	27	17		420		D7-K2			
831	NS	13275	625	2	27	6	S	466		A2-V2	414		
832	NE	9375	1500	2	27	17		466		C4-H1			
833	NS	1000	125	2	26	3	H S	421		F1-L2	415		
834	NE	4375	1625	2	26	17		421		E4-E2			
835	NS	8125	4000	2	26	3	S	422		C9-U1	416		
836	NE	11775	4125	2	26	17		422		B9-J2			
837	NS	12525	625	2	26	6	S	467		B2-B2	417		
838	NE	9000	1500	2	26	17		467		C4-L1			
839	NS	14650	2500	2	25	6	H S	281		A6-H1	418		
840	NE	11650	4125	2	25	17		281		B9-K2			
841	NS	11400	1125	2	25	6	S	433		B3-M2	419		
842	NE	2250	2625	2	25	17		433		C6-T2			
843	NS	12525	1125	2	25	6	S	434		B3-B2	420		
844	NE	9375	2500	2	25	17		434		C6-H1			
845	NS	11400	1000	2	25	6	S	425		B3-M1	421		
846	NE	8375	2500	2	25	17		425		C6-S1			
847	NS	3500	125	2	25	3	S	426		E1-N2	422		
848	NE	6750	1000	2	25	17		426		D3-F1			
849	NS	10650	4000	2	25	6	S	427		B9-U1	423		
850	NE	7250	4125	2	25	17		427		D9-B2			
851	NS	500	125	2	24	3	H S	428		F1-R2	424		
852	NE	3375	1500	2	24	17		428		E4-P1			
853	NS	12650	1000	2	24	6	S	429		B3-A1	425		
854	NE	10000	2500	2	24	17		429		C6-B1			
855	NS	11400	4000	2	24	6	S	430		B9-M1	426		
856	NE	8375	4000	2	24	17		430		C9-S1			
857	NS	11275	4000	2	24	6	S	431		B9-N1	427		
858	NE	8250	4125	2	24	17		431		C9-T2			
859	NS	10525	1125	2	23	6	H S	432		B3-V2	428		
860	NE	8000	2625	2	23	17		432		C6-V2			
861	NS	10900	1125	2	23	6	S	433		B3-S2	429		
862	NE	8375	2625	2	23	17		433		C6-S2			
863	NS	11025	1125	2	23	6	S	434		B3-R2	430		
864	NE	8500	2625	2	23	17		434		C6-R2			
865	NS	1500	125	2	23	3	S	435		F1-F2	431		
866	NE	4000	1625	2	23	17		435		E4-J2			
867	NS	3875	1125	2	23	6	S	436		E3-K2	432		
868	NE	1250	2500	2	23	17		436		F6-J1			
869	NS	3375	125	2	23	3	S	437		E1-P2	433		
870	NE	6125	625	2	23	17		437		D2-M2			
871	NS	11150	1125	2	23	6	S	438		B3-P2	434		
872	NE	8625	2500	2	23	17		438		C6-P1			
873	NS	14025	2625	2	22	6	H S	280		A6-N2	435		
874	NE	11900	4000	2	22	17		280		B9-H1			
875	NS	9125	1125	2	22	6	S	439		C3-K2	436		
876	NE	6875	2625	2	22	17		439		D6-E2			
877	NS	6250	1125	2	22	3	S	440		D3-L2	437		
878	NE	8750	1625	2	22	17		440		C4-N2			
879	NS	6500	500	2	22	3	S	441		D2-J1	438		
880	NE	9000	1125	2	22	17		441		C3-L2			
881	NS	14025	500	2	22	6	S	442		A2-N1	439		
882	NE	11525	1125	2	22	17		442		B3-L2			
883	NS	13900	2500	2	21	6	H S	278		A6-P1	440		
884	NE	12025	4000	2	21	17		278		B9-F1			

SEQUENCE LIST GENRAD S3927F

PNT#	ID	X-CRD	Y-CRD	Z	BIN	DI	HIS	SRC#	SIGNALNAME	PIN NAME	WIRE	P	W
885	NS	9000	625	2	21	6		S 443		C2-L2	441		
886	NE	6625	1125	2	21	17		443		D3-H2			
887	NS	1250	125	2	21	3		S 444		F1-J2	442		
888	NE	3250	1500	2	21	17		444		E4-R1			
889	NS	7375	1000	2	21	3		S 445		D3-A1	443		
890	NE	9250	2500	2	21	17		445		C6-J1			
891	NS	6375	625	2	21	3		S 446		D2-K2	444		
892	NE	8625	1125	2	21	17		446		C3-P2			
893	NS	6500	625	2	21	3		S 447		D2-J2	445		
894	NE	8750	1125	2	21	17		447		C3-N2			
895	NS	7125	1000	2	21	3		S 448		D3-C1	446		
896	NE	8875	2500	2	21	17		448		C6-M1			
897	NS	13900	500	2	21	6		S 449		A2-P1	447		
898	NE	11650	1000	2	21	17		449		B3-K1			
899	NS	11775	625	2	21	6		S 465		B2-J2	448		
900	NE	9500	1500	2	21	17		465		C4-F1			
901	NS	14150	2625	2	20	6	H	S 279		A6-M2	449		
902	NE	12400	4000	2	20	17		279		B9-C1			
903	NS	11275	1125	2	20	6		S 450		B3-N2	450		
904	NE	9625	2500	2	20	17		450		C6-E1			
905	NS	13775	500	2	20	6		S 451		A2-R1	451		
906	NE	11775	1000	2	20	17		451		B3-J1			
907	NS	13650	625	2	17	6	H	S 452		A2-S2	452		
908	NE	11775	1125	2	17	17		452		B3-J2			
909	NS	9000	0	2	17	3		S 453		C1-L1	453		
910	NE	10775	125	2	17	17		453		B1-T2			
911	NS	9375	1125	2	17	5		S 454		C3-H2	454		
912	NE	8125	2500	2	17	17		454		C6-U1			
913	NS	14775	2500	2	16	4	H	S 277		A6-F1	455		
914	NE	14900	4125	2	16	17		277		A9-E2			
915	NS	11150	4000	2	16	6		S 455		B9-P1	456		
916	NE	9625	4000	2	16	17		455		C9-E1			
917	NS	10900	4000	2	16	6		S 456		B9-S1	457		
918	NE	9375	4000	2	16	17		456		C9-H1			
919	NS	8000	1125	2	16	4		S 457		C3-V2	458		
920	NE	8750	2625	2	16	17		457		C6-N2			
921	NS	8250	1125	2	16	4		S 458		C3-T2	459		
922	NE	8875	2625	2	16	17		458		C6-M2			
923	NS	13650	500	2	16	6		S 459		A2-S1	460		
924	NE	12150	1000	2	16	17		459		B3-E1			
925	NS	13775	125	2	15	4	H	S 460		A1-R2	461		
926	NE	13775	1625	2	15	17		460		A4-R2			
927	NS	13400	125	2	15	4		S 461		A1-U2	462		
928	NE	13400	1625	2	15	17		461		A4-U2			
929	NS	12275	125	2	15	4		S 469		B1-D2	463		
930	NE	12275	1625	2	15	17		469		B4-D2			
931	NS	11900	0	2	15	4		S 470		B1-H1	464		
932	NE	11900	1500	2	15	17		470		B4-H1			
933	NS	11775	125	2	15	4		S 471		B1-J2	465		
934	NE	11775	1625	2	15	17		471		B4-J2			
935	NS	11650	125	2	15	4		S 472		B1-K2	466		
936	NE	11650	1625	2	15	17		472		B4-K2			
937	NS	11525	125	2	15	4		S 473		B1-L2	467		
938	NE	11525	1625	2	15	17		473		B4-L2			
939	NS	11400	125	2	15	4		S 474		B1-M2	468		

SEQUENCE LIST GENRAD S3927F

PNT#	ID	X-CRD	Y-CRD	Z	BIN	DI	HIS	SRC#	SIGNALNAME	PIN NAME	WIRE	P	W
940	NE	11400	1625	2	15	17		474		B4-M2			
941	NS	11275	125	2	15	4		S 475		B1-N2	469		
942	NE	11275	1625	2	15	17		475		B4-N2			
943	NS	11150	125	2	15	4		S 476		B1-P2	470		
944	NE	11150	1625	2	15	17		476		B4-P2			
945	NS	11150	0	2	15	4		S 477		B1-P1	471		
946	NE	11150	1500	2	15	17		477		B4-P1			
947	NS	11025	125	2	15	4		S 478		B1-R2	472		
948	NE	11025	1625	2	15	17		478		B4-R2			
949	NS	10900	125	2	15	4		S 479		B1-S2	473		
950	NE	10900	1625	2	15	17		479		B4-S2			
951	NS	10900	0	2	15	4		S 480		B1-S1	474		
952	NE	10900	1500	2	15	17		480		B4-S1			
953	NS	11025	0	2	15	4		S 481		B1-R1	475-		
954	NE	11025	1500	2	15	17		481		B4-R1			
955	NS	11275	0	2	15	4		S 482		B1-N1	476		
956	NE	11275	1500	2	15	17		482		B4-N1			
957	NS	11400	0	2	15	4		S 483		B1-M1	477		
958	NE	11400	1500	2	15	17		483		B4-M1			
959	NS	11525	0	2	15	4		S 484		B1-L1	478		
960	NE	11525	1500	2	15	17		484		B4-L1			
961	NS	11650	0	2	15	4		S 485		B1-K1	479		
962	NE	11650	1500	2	15	17		485		B4-K1			
963	NS	11775	0	2	15	4		S 486		B1-J1	480		
964	NE	11775	1500	2	15	17		486		B4-J1			
965	NS	10650	125	2	15	4		S 487		B1-U2	481		
966	NE	10650	1625	2	15	17		487		B4-U2			
967	NS	10650	0	2	15	4		S 488		B1-U1	482		
968	NE	10650	1500	2	15	17		488		B4-U1			
969	NS	8000	625	2	15	6		S 489		C2-V2	483		
970	NE	6625	1000	2	15	17		489		D3-H1			
971	NS	11025	4000	2	14	6	H	S 490		B9-R1	484		
972	NE	10000	4000	2	14	17		490		C9-B1			
973	NS	10000	625	2	14	6		S 491		C2-B2	485		
974	NE	8875	1125	2	14	17		491		C3-M2			
975	NS	8500	625	2	14	4		S 492		C2-R2	486		
976	NE	9125	1625	2	14	17		492		C4-K2			
977	NS	11025	625	2	14	3		S 493		B2-R2	487		
978	NE	12150	1125	2	14	17		493		B3-E2			
979	NS	13525	[illegible]	2	14	6		S 494		A2-T2	488		
980	NE	12400	1000	2	14	17		494		B3-C1			
981	NS	5750	500	2	12	4	H	S 495		D2-R1	489		
982	NE	6000	1125	2	12	17		495		D3-N2			
983	NS	5250	625	2	12	3		S 496		D2-V2	490		
984	NE	5750	1000	2	12	17		496		D3-R1			
985	NS	5625	500	2	12	4		S 497		D2-S1	491		
986	NE	5875	1000	2	12	17		497		D3-P1			
987	NS	5375	625	2	12	4		S 498		D2-U2	492		
988	NE	5750	1125	2	12	17		498		D3-R2			
989	NS	6250	625	2	12	4		S 499		D2-L2	493		
990	NE	6375	1125	2	12	17		499		D3-K2			
991	NS	7250	625	2	12	6		S 500		D2-B2	494		
992	NE	6875	1000	2	12	17		500		D3-E1			
993	NS	6625	625	2	12	3		S 501		D2-H2	495		
994	NE	7000	1000	2	12	17		501		D3-D1			

SEQUENCE LIST GENRAD S3927F

PNT#	ID	X-CRD	Y-CRD	Z	BIN	DI	HIS	SRC#	SIGNALNAME	PIN NAME	WIRE	P	W
995	NS	6750	625	2	12	4	S	502		D2-F2	496		
996	NE	6875	1125	2	12	17		502		D3-E2			
997	NS	1375	125	2	12	5	S	503		F1-H2	497		
998	NE	1250	625	2	12	17		503		F2-J2			
999	NS	14525	3625	2	11	4	H S	504		A8-J2	498		
1000	NE	14525	4125	2	11	17		504		A9-J2			
1001	NS	11650	3500	2	11	4	S	505		B8-K1	499		
1002	NE	11650	4000	2	11	17		505		B9-K1			
1003	NS	1125	3500	2	11	4	S	506		F8-K1	500		
1004	NE	1125	4000	2	11	17		506		F9-K1			
1005	NS	6500	3500	2	11	4	S	507		D8-J1	501		
1006	NE	6500	4000	2	11	17		507		D9-J1			
1007	NS	6500	3125	2	11	4	S	508		D7-J2	502		
1008	NE	6500	3625	2	11	17		508		D8-J2			
1009	NS	6625	3125	2	11	4	S	509		D7-H2	503		
1010	NE	6625	3625	2	11	17		509		D8-H2			
1011	NS	6875	3125	2	11	4	S	510		D7-E2	504		
1012	NE	6875	3625	2	11	17		510		D8-E2			
1013	NS	7250	3500	2	11	4	S	511		D8-B1	505		
1014	NE	7250	4000	2	11	17		511		D9-B1			
1015	NS	7250	3125	2	11	4	S	512		D7-B2	506		
1016	NE	7250	3625	2	11	17		512		D8-B2			
1017	NS	8125	3625	2	11	4	S	513		C8-U2	507		
1018	NE	8125	4125	2	11	17		513		C9-U2			
1019	NS	8000	3500	2	11	4	S	514		C8-V1	508		
1020	NE	8000	4000	2	11	17		514		C9-V1			
1021	NS	8000	3125	2	11	4	S	515		C7-V2	509		
1022	NE	8000	3625	2	11	17		515		C8-V2			
1023	NS	8125	3000	2	11	4	S	516		C7-U1	510		
1024	NE	8125	3500	2	11	17		516		C8-U1			
1025	NS	8250	3125	2	11	4	S	517		C7-T2	511		
1026	NE	8250	3625	2	11	17		517		C8-T2			
1027	NS	8750	3500	2	11	4	S	518		C8-N1	512		
1028	NE	8750	4000	2	11	17		518		C9-N1			
1029	NS	9125	3500	2	11	4	S	519		C8-K1	513		
1030	NE	9125	4000	2	11	17		519		C9-K1			
1031	NS	9125	3125	2	11	4	S	520		C7-K2	514		
1032	NE	9125	3625	2	11	17		520		C8-K2			
1033	NS	9250	3000	2	11	4	S	521		C7-J1	515		
1034	NE	9250	3500	2	11	17		521		C8-J1			
1035	NS	9375	3000	2	11	4	S	522		C7-H1	516		
1036	NE	9375	3500	2	11	17		522		C8-H1			
1037	NS	9625	3000	2	11	4	S	523		C7-E1	517		
1038	NE	9625	3500	2	11	17		523		C8-E1			
1039	NS	10000	3000	2	11	4	S	524		C7-B1	518		
1040	NE	10000	3500	2	11	17		524		C8-B1			
1041	NS	8875	3125	2	11	4	S	525		C7-M2	519		
1042	NE	8875	3625	2	11	17		525		C8-M2			
1043	NS	8875	3000	2	11	4	S	526		C7-M1	520		
1044	NE	8875	3500	2	11	17		526		C8-M1			
1045	NS	8750	3125	2	11	4	S	527		C7-N2	521		
1046	NE	8750	3625	2	11	17		527		C8-N2			
1047	NS	8625	3125	2	11	4	S	528		C7-P2	522		
1048	NE	8625	3625	2	11	17		528		C8-P2			
1049	NS	8625	3000	2	11	4	S	529		C7-P1	523		

SEQUENCE LIST GENRAD : S3927F

PNT#	ID	X-CRD	Y-CRD	Z	BIN	DI	HIS	SRC#	SIGNALNAME	PIN NAME	WIRE	P	W
1050	NE	8625	3500	2	11	17		529		C8-P1			
1051	NS	8500	3125	2	11	4	S	530		C7-R2	524		
1052	NE	8500	3625	2	11	17		530		C8-R2			
1053	NS	8375	3125	2	11	4	S	531		C7-S2	525		
1054	NE	8375	3625	2	11	17		531		C8-S2			
1055	NS	8375	3000	2	11	4	S	532		C7-S1	526		
1056	NE	8375	3500	2	11	17		532		C8-S1			
1057	NS	8125	2625	2	11	4	S	533		C6-U2	527		
1058	NE	8125	3125	2	11	17		533		C7-U2			
1059	NS	8000	2500	2	11	4	S	534		C6-V1	528		
1060	NE	8000	3000	2	11	17		534		C7-V1			
1061	NS	8750	2500	2	11	4	S	535		C6-N1	529		
1062	NE	8750	3000	2	11	17		535		C7-N1			
1063	NS	9125	2500	2	11	4	S	536		C6-K1	530		
1064	NE	9125	3000	2	11	17		536		C7-K1			
1065	NS	7250	2500	2	11	4	S	537		D6-B1	531		
1066	NE	7250	3000	2	11	17		537		D7-B1			
1067	NS	6500	2500	2	11	4	S	538		D6-J1	532		
1068	NE	6500	3000	2	11	17		538		D7-J1			
1069	NS	9375	0	2	10	4	H S	539		C1-H1	533		
1070	NE	9375	125	2	10	17		539		C1-H2			
1071	NS	3625	500	3	70	3	H S	540		E2-M1	534		
1072	NE	15275	4000	3	70	17		540		A9-B1			
1073	NS	3875	500	3	66	3	H S	541		E2-K1	535		
1074	NE	15025	4000	3	66	17		541		A9-D1			
1075	NS	14900	2500	3	41	6	H S	396		A6-E1	536		
1076	NE	8750	4125	3	41	17		396		C9-N2			
1077	NS	14650	2500	3	37	6	H S	398		A6-H1	537		
1078	NE	8875	4125	3	37	17		398		C9-M2			
1079	NS	14025	2625	3	35	6	H S	404		A6-N2	538		
1080	NE	8875	4000	3	35	17		404		C9-M1			
1081	NS	14150	2625	3	34	6	H S	408		A6-M2	539		
1082	NE	9250	4000	3	34	17		408		C9-J1			
1083	NS	15400	3000	3	30	6	H S	542		A7-A1	540		
1084	NE	11525	4125	3	30	17		542		B9-L2			
1085	NS	3750	625	3	21	6	H S	543		E2-L2	541		
1086	NE	1500	1000	3	21	17		543		F3-F1			
1087	NS	6125	1000	3	21	3	S	544		D3-M1	542		
1088	NE	2375	1625	3	21	17		544		C4-S2			
1089	NS	3500	500	3	20	6	H S	545		E2-N1	543		
1090	NE	1375	1000	3	20	17		545		F3-H1			
1091	NS	8625	625	3	13	5	H S	468		C2-P2	544		
1092	NE	8500	1500	3	13	17		468		C4-R1			
1093	NS	1125	2500	3	11	4	H S	546		F6-K1	545		
1094	NE	1125	3000	3	11	17		546		F7-K1			

****ERROR SUMMARY****

NO ERRORS

END LISTING

A3927 PART II PAGE 22 2511-2013-40 REV 1

THESE WIRES MUST BE ADDED ON TOP LAST

SEQUENCE LIST GENRAD A3927

PNT#	ID	X-CRD	Y-CRD	Z	BIN	DI	HIS	SRC#	SIGNALNAME	PIN NAME	WIRE	P	W
5	NS	13900	125	1	57	6	H S	8		A1-P2	1		
6	NE	4000	125	1	57	17		8		E1-J2			
7	NS	2000	0	1	72	3	H S	6		F1-B1	2		
8	NE	14650	125	1	72	17		6		A1-H2			
9	NS	1375	0	1	74	3	H S	4		F1-H1	3		
10	NE	14400	125	1	74	17		4		A1-K2			
11	NS	1625	0	1	74	3	S	7		F1-E1	4		
12	NE	14775	125	1	74	17		7		A1-F2			
13	NS	500	0	1	76	3	H S	2		F1-R1	5		
14	NE	14150	125	1	76	17		2		A1-M2			
15	NS	750	0	1	77	3	H S	5		F1-N1	6		
16	NE	14525	125	1	77	17		5		A1-J2			
17	NS	14275	125	1	100	6	H S	3		A1-L2	7		
18	NE	125	125	1	100	17		3		F1-U2			
19	NS	4000	125	2	60	3	H S	9		E1-J2	8		
20	NE	13900	1625	2	60	17		9		A4-P2			

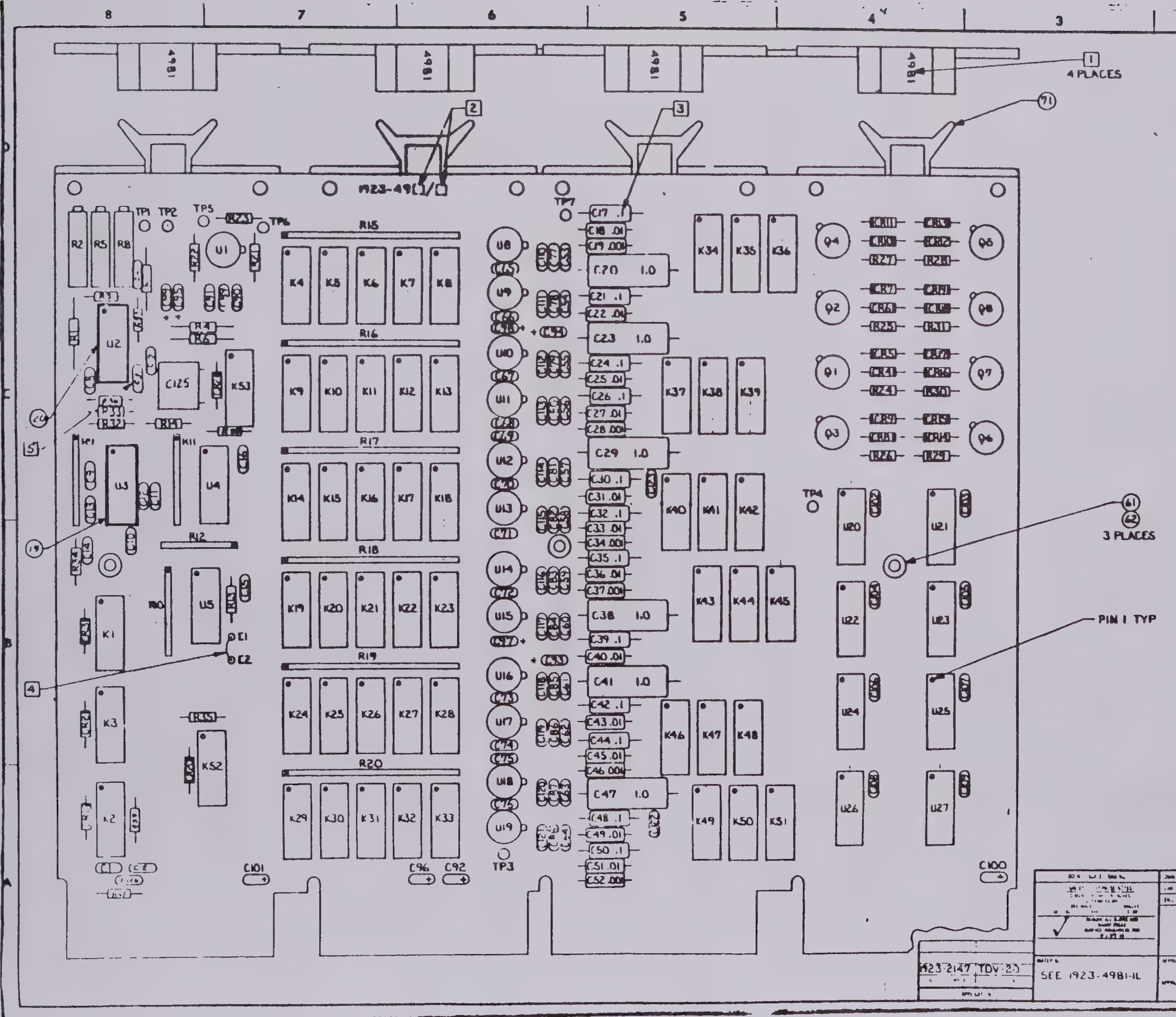
****ERROR SUMMARY****

NO ERRORS

END LISTING

S3927F DAPR RUN PARAMETER SUMMARY PAGE 23

WIRE LIST'S NAME:	S3927F
GEOM'S NAME:	G3927
RUN TYPE:	FROM-TO
ROUTING STYLE:	POINT-TO-POINT
LIST HEADER:	GENRAD -2019 S3927F
WANT CRFF?	BOTH
ADDED LENGTH:	2750
OUTPUT TO:	SY:
BL TYPE:	A



REVISIONS
SEE ECN 1642
SEE ECNS 1674A, 1675A, 1676A
RELEASE PER PRB 3039 = REV G
SEE ECN 1738
REVISED PER ECN 2041
ADDED C3 PER ECN 2144
REV PER ECN 2396
REV PER ECN 2551
TRACKING PER ECN 2593
TRACKING PER ECN 2597
TRACKING PER ECN 2552
ADDED NOTE 5 PER ECN 2625
REVISED PER ECN 2748
2546

NOTES:

1. MARK LAST FOUR DIGITS OF PART NO. USING .12 HIGH BLACK CHARACTERS, WHERE SHOWN
2. MARK LAST TWO DIGITS OF PART NO. AND APPLICABLE REV NO. USING .12 HIGH BLACK CHARACTERS, WHERE SHOWN
3. VALUES FOR C17 THRU C52 ARE IN MICROFARADS
4. INSTALL JUMPER FROM E1 TO E2
5. ALTERNATE VALUES OF C3 ARE:

4700-0372	68 PF	2%
4700-0386	82 PF	2%
4700-0385	91 PF	2%

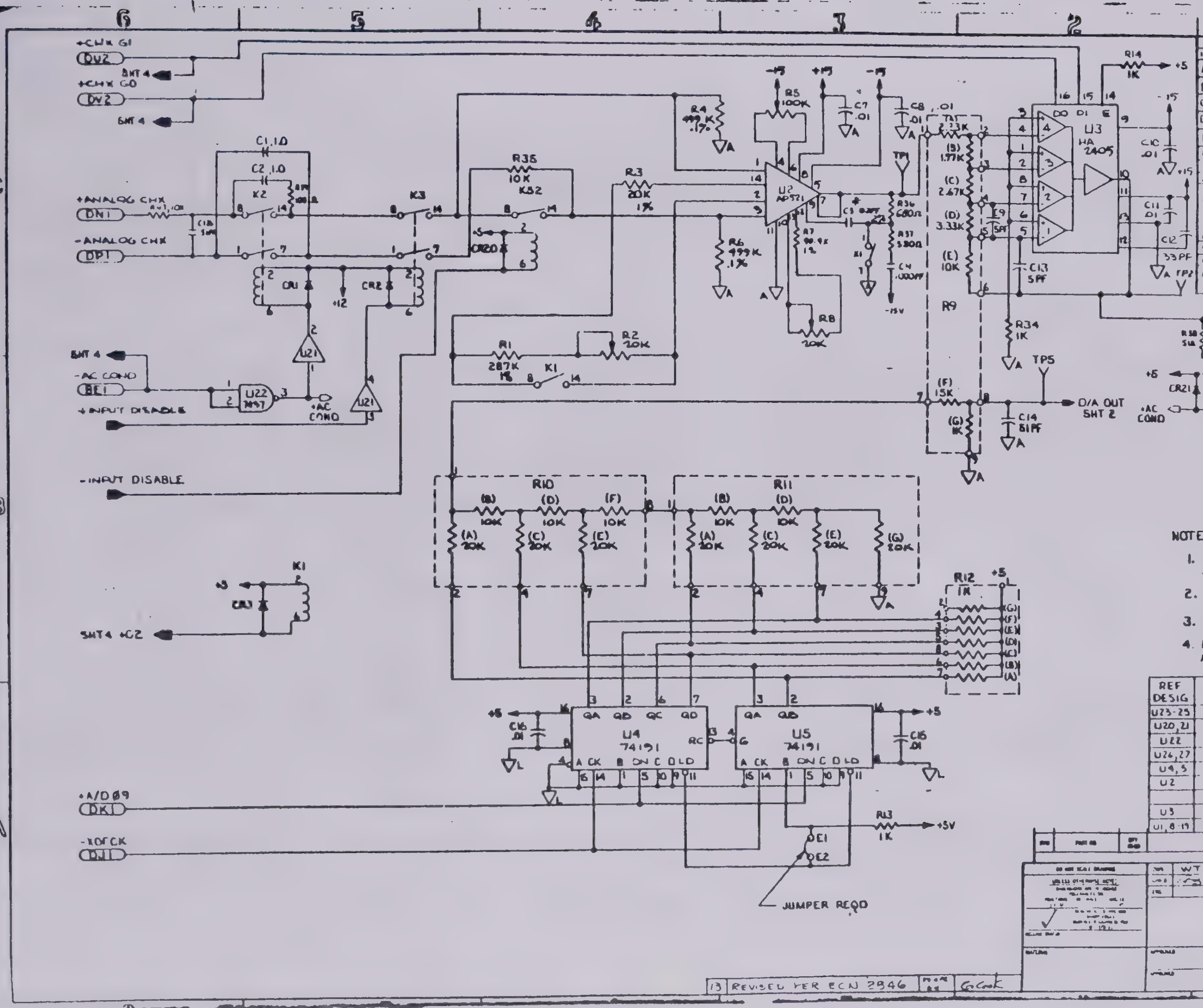
1923-2147 TDV-23

SEE 1923-4981-IL

Time/Data

CARD ASSY ANALOG INPUT AND FILTER

D 1923-4981-IL



A	REDESIGNED	
B	CHANGED CAP VALUES	
C	ADDED U22 GATE TO SHT 4	
D	ADDED C110-123	
E	[illegible] REPLACED BY RELAYS	
G	[illegible] ECN 1642	
1	RELEASE PER PRB 3039-G	
2	REVISED PER ECN 989	
	REVISED PER ECN [illegible]	
	REV PER ECN 2396	
	[illegible]	
8	REVISED PER ECN 2530	
9	REVISED PER ECN 2537	
10	REVISED PER ECN 2556	
	[illegible]	
11	REVISED PER ECN 2748	
13	REVISED PER ECN 2946	

NOTES: UNLESS OTHERWISE SPECIFIED

1. ALL CAPACITOR VALUES ARE IN MICROFARAD
   * -FACTORY SELECT: TYPICAL VALUE SHOWN
2. ALL RESISTOR VALUES ARE IN OHMS
3. CR1 THRU CR21 ARE IN4148
4. REF DESIGNATIONS U6,U7,C3,C4,C5,C6,C124 ARE NOT USED

REF DESIG	IC TYPE	PIN NUMBERS +5V	+15V	-15V	GND A	GND L
U23-25	7403	14	—	—	—	7
U20,21	7417	14	—	—	—	7
U22	7437	14	—	—	—	7
U26,27	74174	16	—	—	—	8
U4,5	74191	16	—	—	—	8
U2	AD521	—	8	5	11	—
U3	HA2405	—	11	9	13	—
U1,8-19	HA2625	—	7	4	—	—

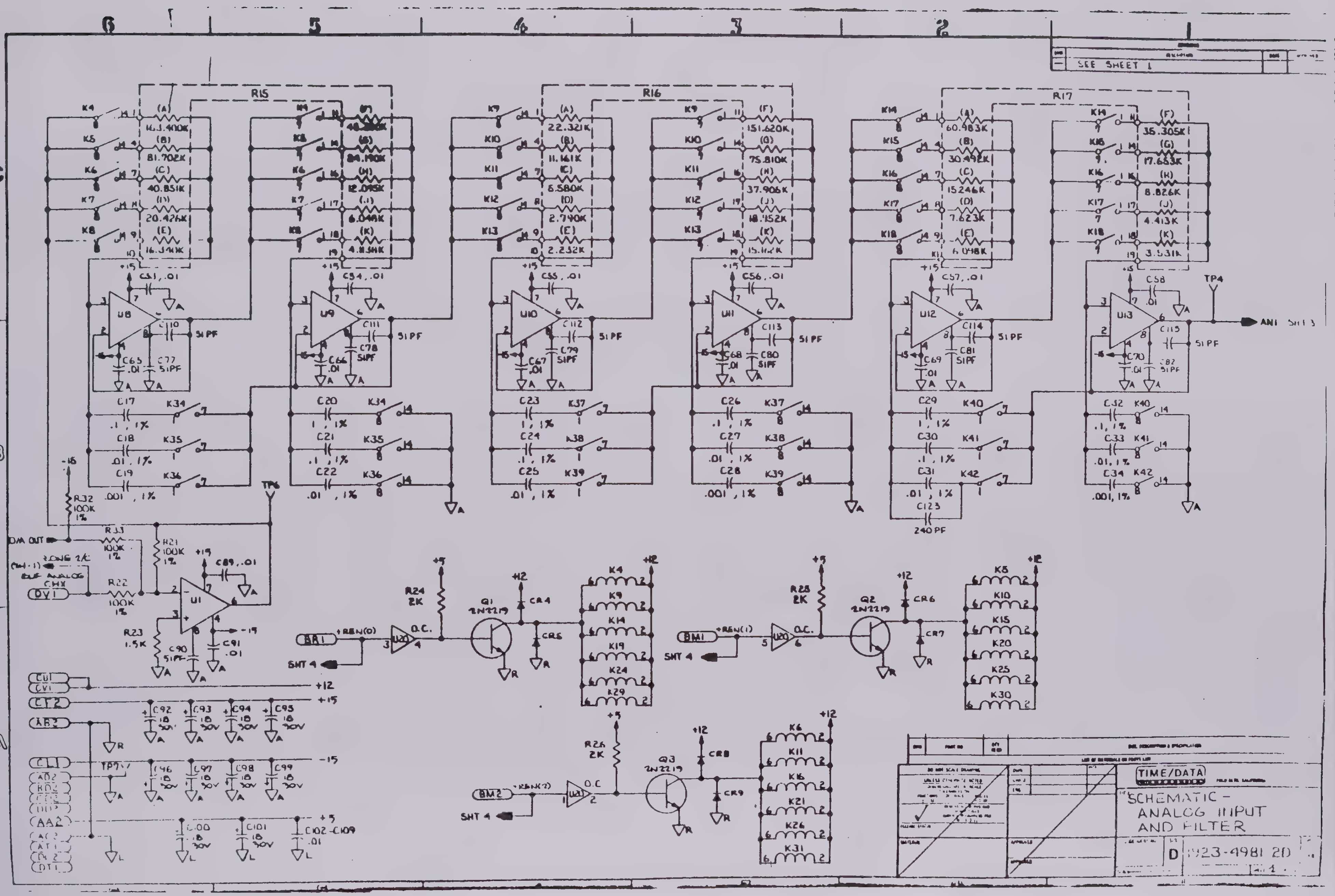
WTS

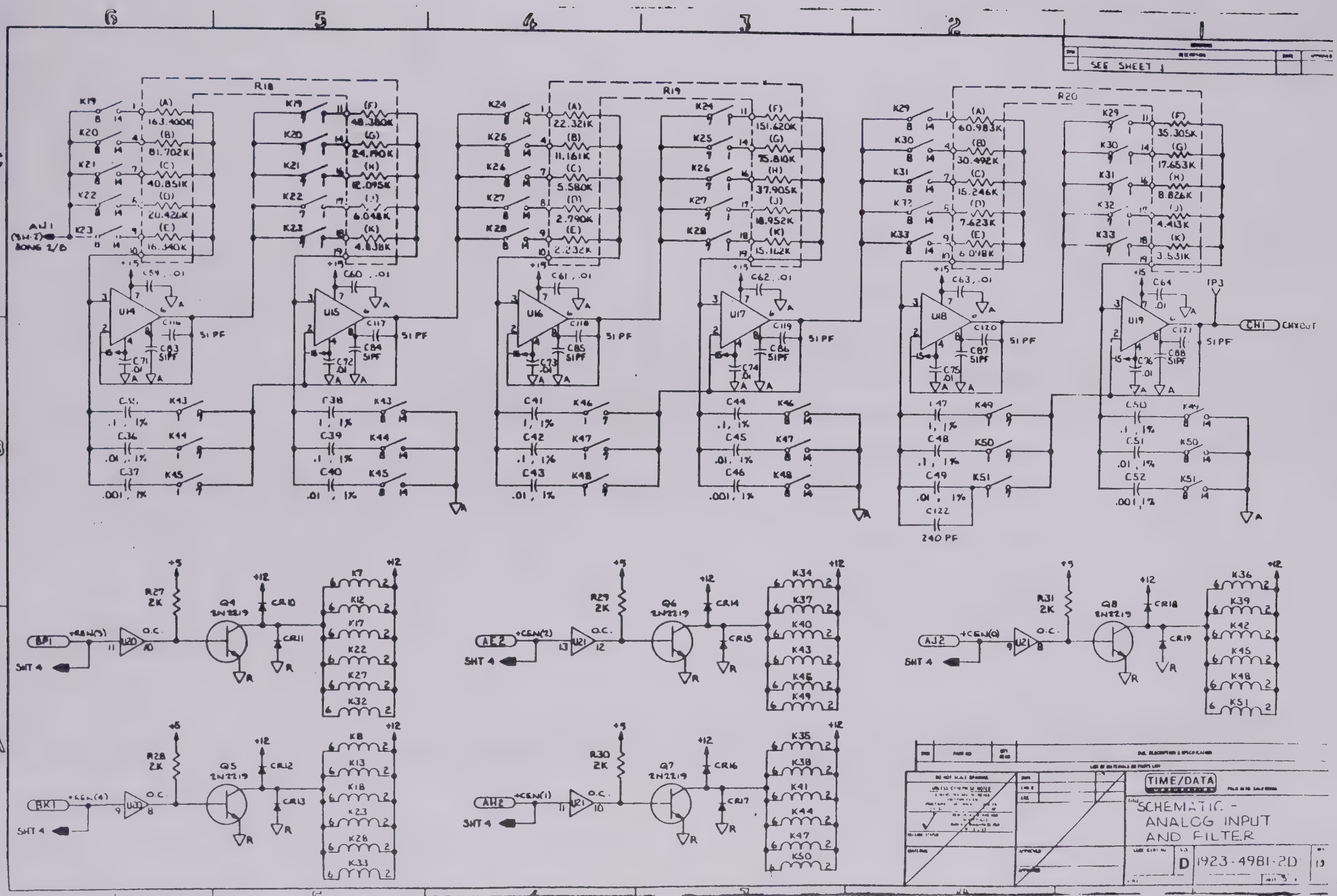
TIME/DATA

SCHEMATIC - ANALOG INPUT AND FILTER

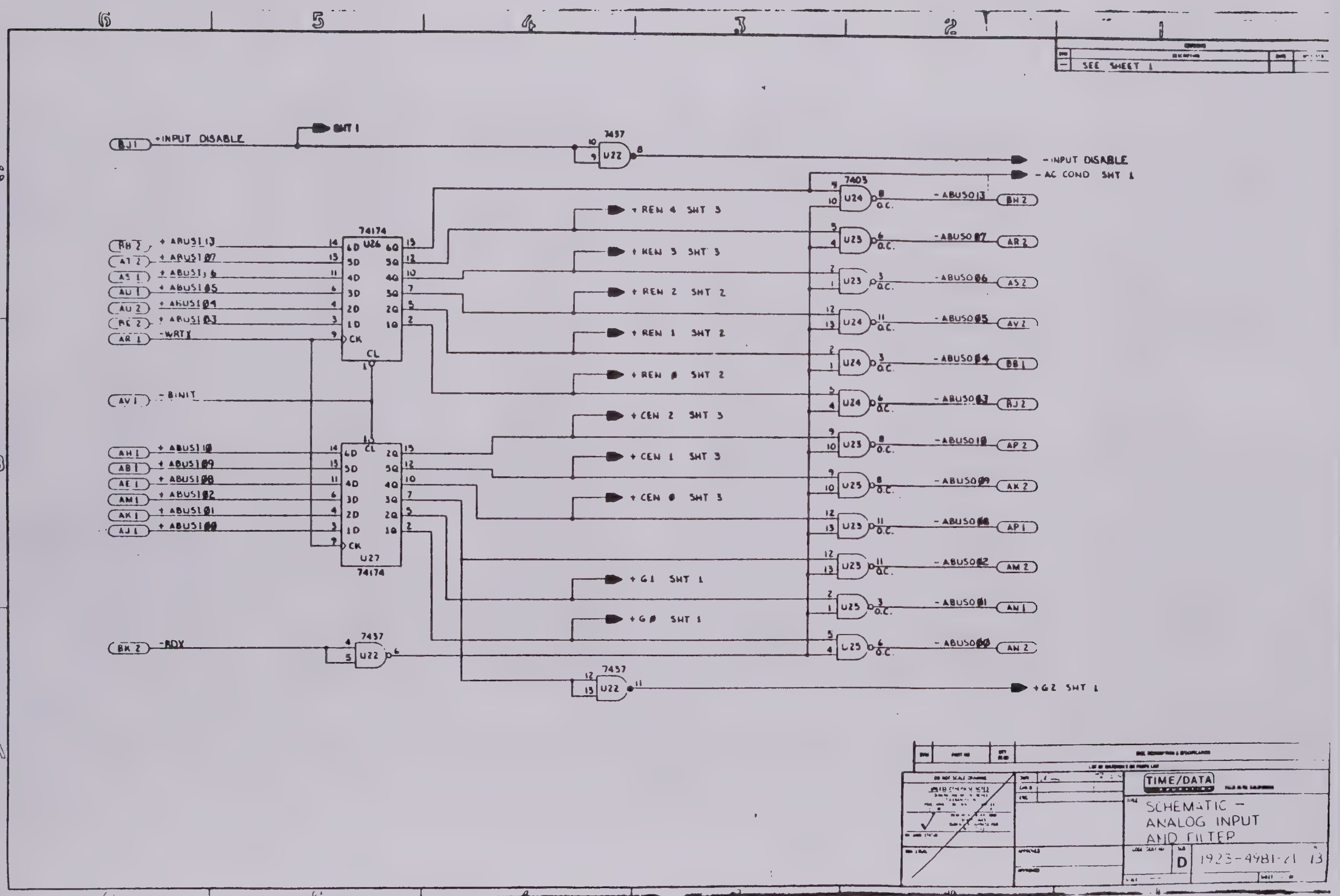
D 1923-4981-2D

SCALE NONE


SEE SHEET 1
R15
R16
R17
AN1 SHT 3
TIME/DATA
SCHEMATIC -
ANALOG INPUT
AND FILTER
D
923-4981 2D

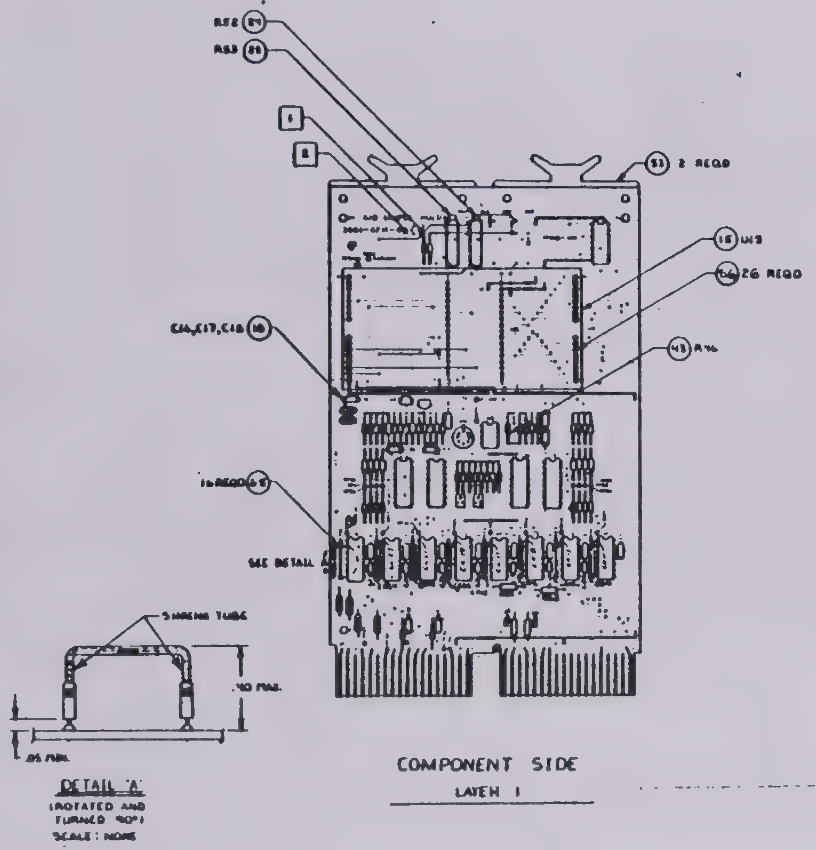


SEE SHEET 1
R18
R19
R20
AJ1 (SH 2) BONG 2/B
U14
U15
U16
U17
U18
U19
CH1 CHXOUT
TP3
240 PF
BP1
BK1
AE2
AH2
AJ2
SHT 4
TIME/DATA
SCHEMATIC - ANALOG INPUT AND FILTER
D 1923-4981-2D



SEE SHEET 1
BJ1 +INPUT DISABLE
SHT 1
7437
U22
-INPUT DISABLE
-AC COND SHT 1
7403
74174
U26
BH2 +ABUSI13
AT2 +ABUSI07
AS1 +ABUSI06
AU1 +ABUSI05
AU2 +ABUSI04
BC2 +ABUSI03
AR1 -WRTY
AV1 -BINIT
AH1 +ABUSI10
AB1 +ABUSI09
AE1 +ABUSI08
AM1 +ABUSI02
AK1 +ABUSI01
AJ1 +ABUSI00
U27
74174
BK2 -RDY
+REN 4 SHT 3
+REN 3 SHT 3
+REN 2 SHT 2
+REN 1 SHT 2
+REN 0 SHT 2
+CEN 2 SHT 3
+CEN 1 SHT 3
+CEN 0 SHT 3
+G1 SHT 1
+G0 SHT 1
+G2 SHT 1
U24
U23
U25
O.C.
-ABUSO13 BH2
-ABUSO07 AR2
-ABUSO06 AS2
-ABUSO05 AV2
-ABUSO04 BB1
-ABUSO03 BJ2
-ABUSO10 AP2
-ABUSO09 AK2
-ABUSO08 AP1
-ABUSO02 AM2
-ABUSO01 AN1
-ABUSO00 AN2
TIME/DATA
SCHEMATIC - ANALOG INPUT AND FILTER
D 1923-4981-21 13

REV	DESCRIPTION
1	INITIAL RELEASE
1A	REMOVE & INSTALL CALLOUTS PER ECN [illegible]
2	[illegible]
3	TRACKED PER ECN 2392
4	PER ECN [illegible] ADDED C[illegible], DELETED R1-R8
5	REVISED PER ECN 2741
6	TRACKING PER ECN 2770



COMPONENT SIDE

LATCH 1

NOTES:

1. MARK APPLICABLE REV. LEVEL USING .12 HIGH CHARACTERS. COLOR: CONTRASTING INDELIBLE INK, WHERE SHOWN.
2. MARK APPLICABLE DASH NO. USING .12 HIGH CHARACTERS. COLOR: CONTRASTING INDELIBLE INK, WHERE SHOWN.
3. AFTER WAVE SOLDERING, CLIP ALL COMPONENT LEADS

GenRad

PC BOARD ASSEMBLY

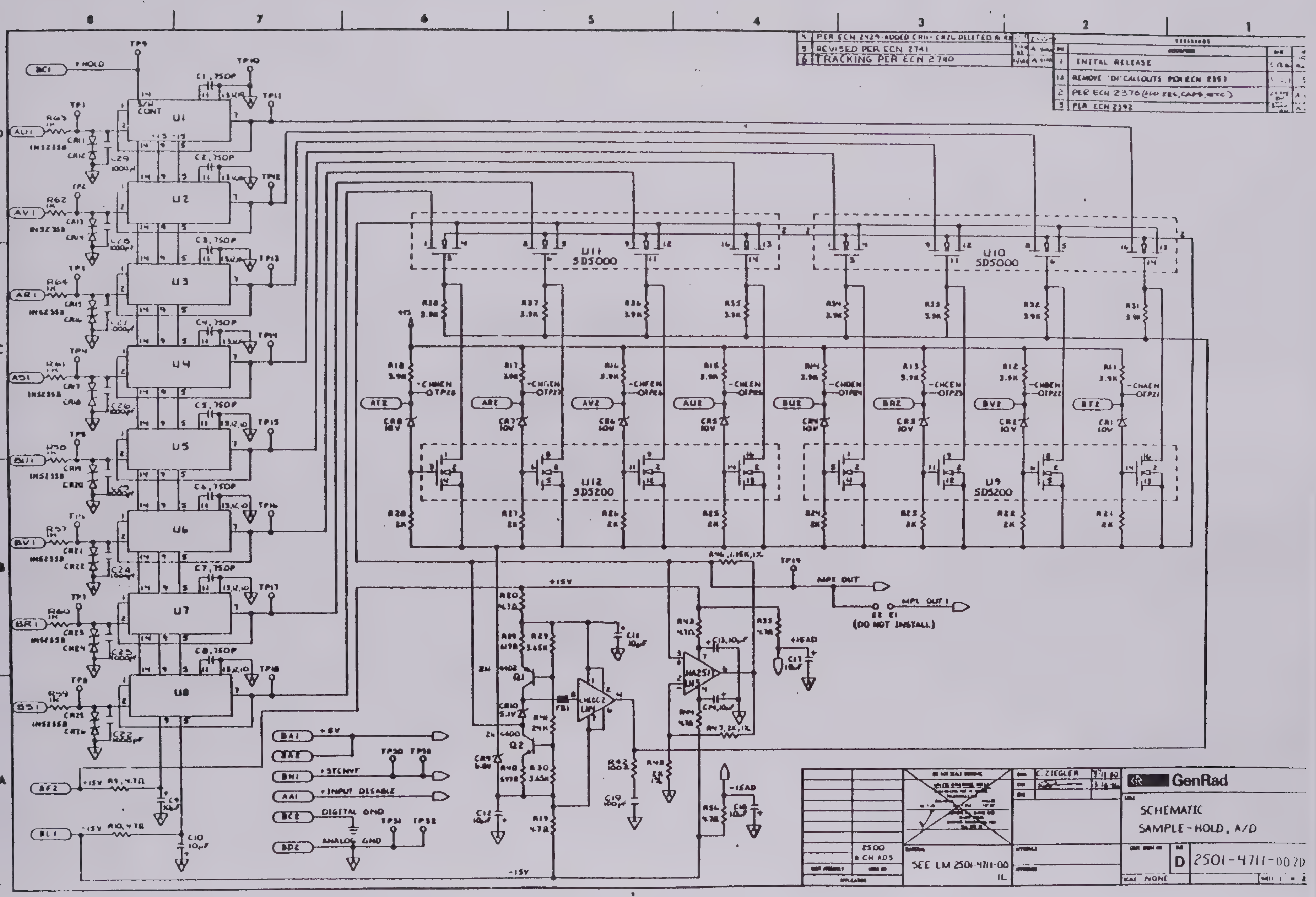
SAMPLE-HOLD, A/D

C ZIEGLER

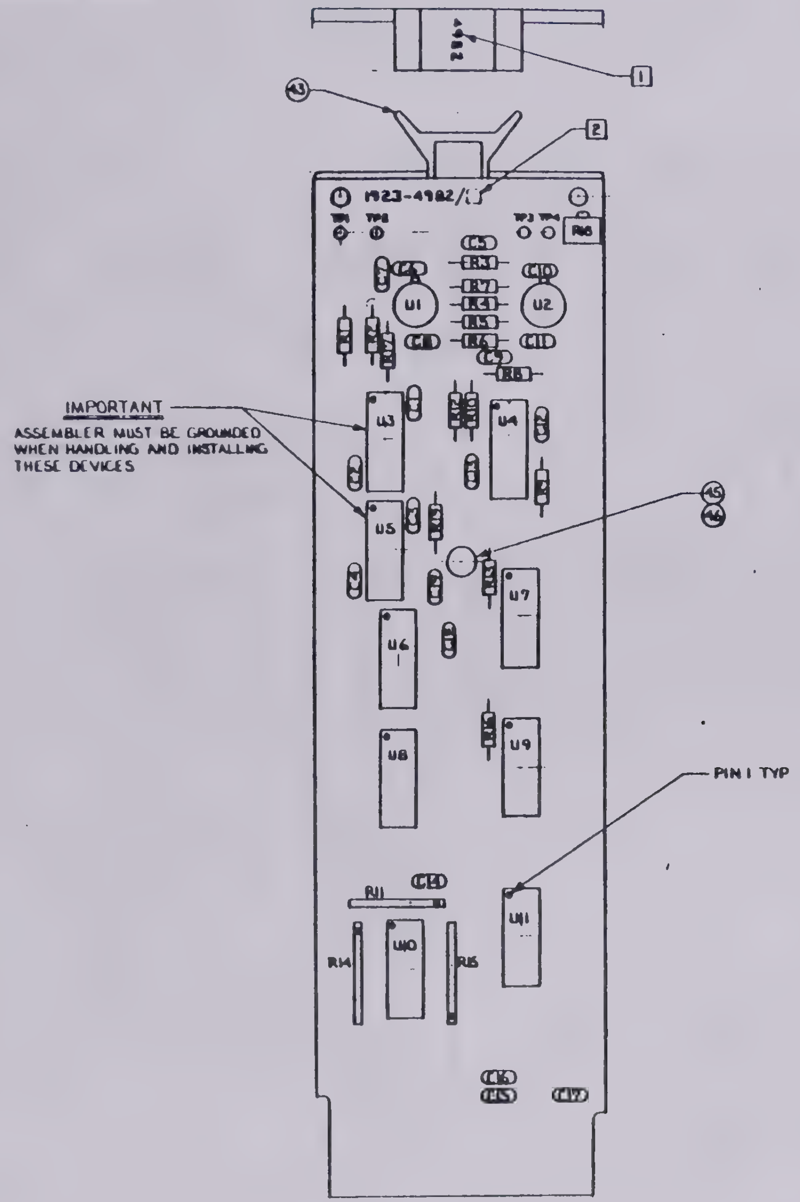
SEE LM 2501-4711-00

2501- 8501

D 2501-4711-00 D


4 PER ECN 2429-ADDED CR11-CR26 DELETED
5 REVISED PER ECN 2741
6 TRACKING PER ECN 2790
1 INITIAL RELEASE
1A REMOVE 'DI' CALLOUTS PER ECN 2351
2 PER ECN 2370
3 PER ECN 2392
U1
U2
U3
U4
U5
U6
U7
U8
U10
SD5000
U11
SD5000
U12
SD5200
U9
SD5200
+HOLD
MPX OUT
MPX OUT 1
(DO NOT INSTALL)
+5V
+STCNVT
+INPUT DISABLE
DIGITAL GND
ANALOG GND
+15V
-15V
+15AD
-15AD
C. ZIEGLER
GenRad
SCHEMATIC
SAMPLE-HOLD, A/D
2500
8 CH ADS
SEE LM 2501-4711-00
D
2501-4711-0020
NONE

LTR	DESCRIPTION	DATE	APPD
G	SEE ECN 1663	4-5-76	
1	RELEASE PER PRB = 3039 = REV G	5-7-76	
3	TRACKING PER ECN 2934		



NOTES:

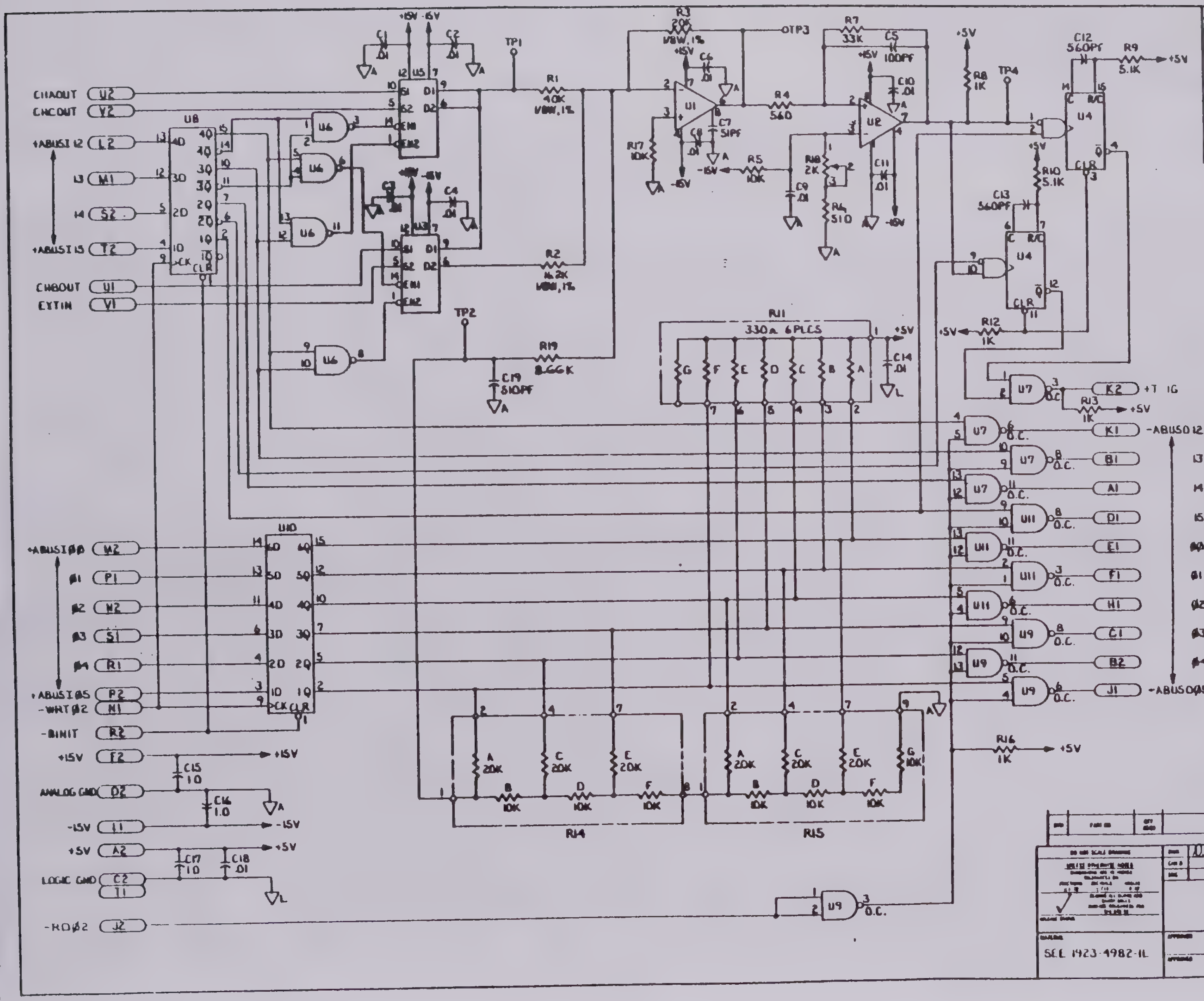
1. MARK LAST FOUR DIGITS OF PART NO., USING .12 HIGH CHARACTERS, COLOR BLACK, WHERE SHOWN
2. MARK APPLICABLE REV NO., USING .12 HIGH CHARACTERS, COLOR BLACK, WHERE SHOWN

2501-3007	E501	SEE 1923-4982-1L
1923-2147	TDV-20	

Time/Data

CARD ASSY
TRIGGER

D 1923-4982-1D



REV	DESCRIPTION
A	FROTOTYPE RELEASE
B	ADDED R8 & TP4, DELETED VR1,2
C	REDESIGNED AND REDRAWN
D	MOVED CONNECTION FROM U1-7 TO U1-6
E	ADDED C19 & R17, CHANGED VALUES OF R1 & R3; MOVED CONNECTION FROM U8-6 TO U8-7
G
1	RELEASE PER PRB 3039 = REV G
2	REVISED (R13) WAS 10K (ECN 1881)
3	[illegible]

NOTES: UNLESS OTHERWISE SPECIFIED

1. ALL CAPACITOR VALUES ARE IN MICROFARADS
2. ALL RESISTOR VALUES ARE IN OHMS
3. ALL RESISTORS ARE 1/4W, 5%

REF DESIG	IC TYPE	PIN NUMBERS +5V	+15V	-15V	GND A	GND L
U8	74175	16	—	—	—	8
U6	7400	14	—	—	—	7
U3,5	DG200	—	12	7	3	—
U1	UA2526	—	7	4	—	—
U2	LM311	—	8	4	1	—
U4	74123	16	—	—	—	8
U7,9,11	7403	14	—	—	—	7
U10	74174	16	—	—	—	8

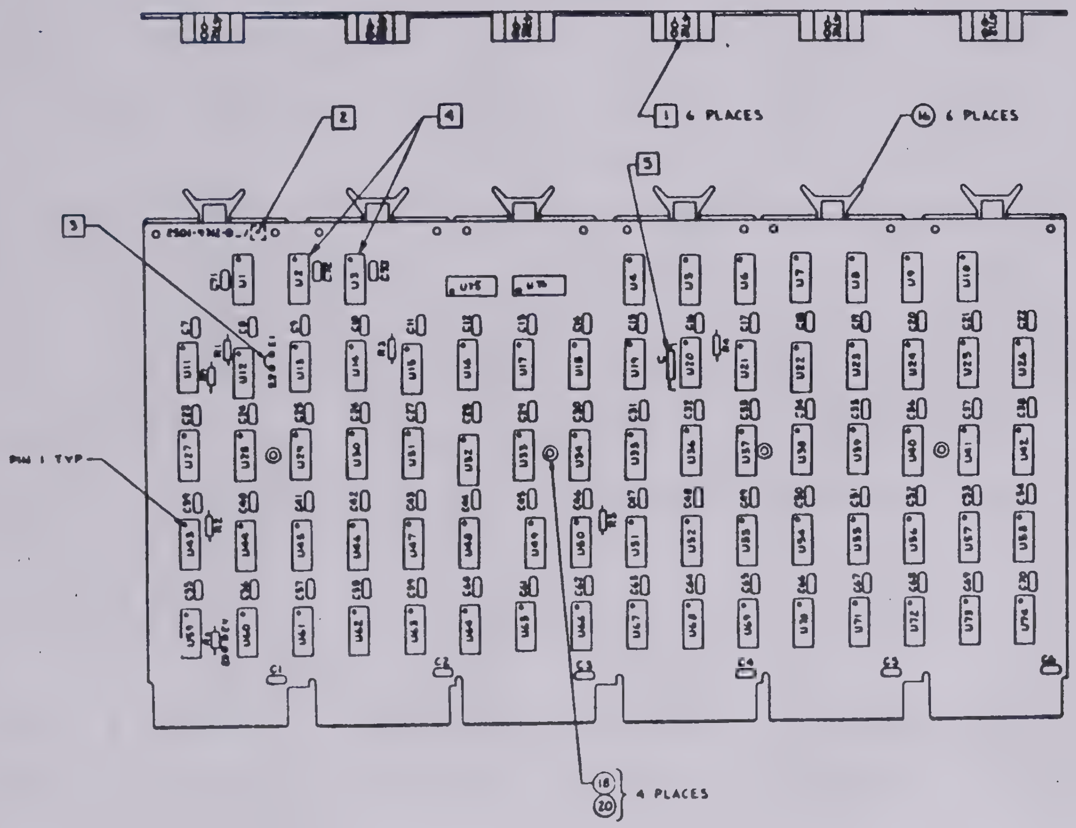
TIME/DATA

SCHEMATIC
TRIGGER BD

SEE 1923-4982-1L

D 1923-4982-2D

REV	DESCRIPTION		
1	INITIAL RELEASE		
1A	[illegible]		
2	TRACK PER ECN 2414		
3	REVISED PER ECN 2876		



NOTES:

1. MARK LAST FOUR MAJOR DIGITS OF PART NO. USING .12 HIGH CHARACTERS, COLOR BLACK, LOCATE APPROX WHERE SHOWN.
2. MARK APPLICABLE REV NO. USING .12 HIGH CHARACTERS, COLOR BLACK, WHERE SHOWN.
3. JUMPER TO BE INSTALLED AFTER BOARD IS TESTED. (REMOVE SHUNT TO TEST)
4. APPLY CLEAR MYLAR TO THE TOPS OF U2 & U3
5. ADD 620 pfd CAPACITOR, ITEM-10 BETWEEN U20, PIN 2 & PIN 7.

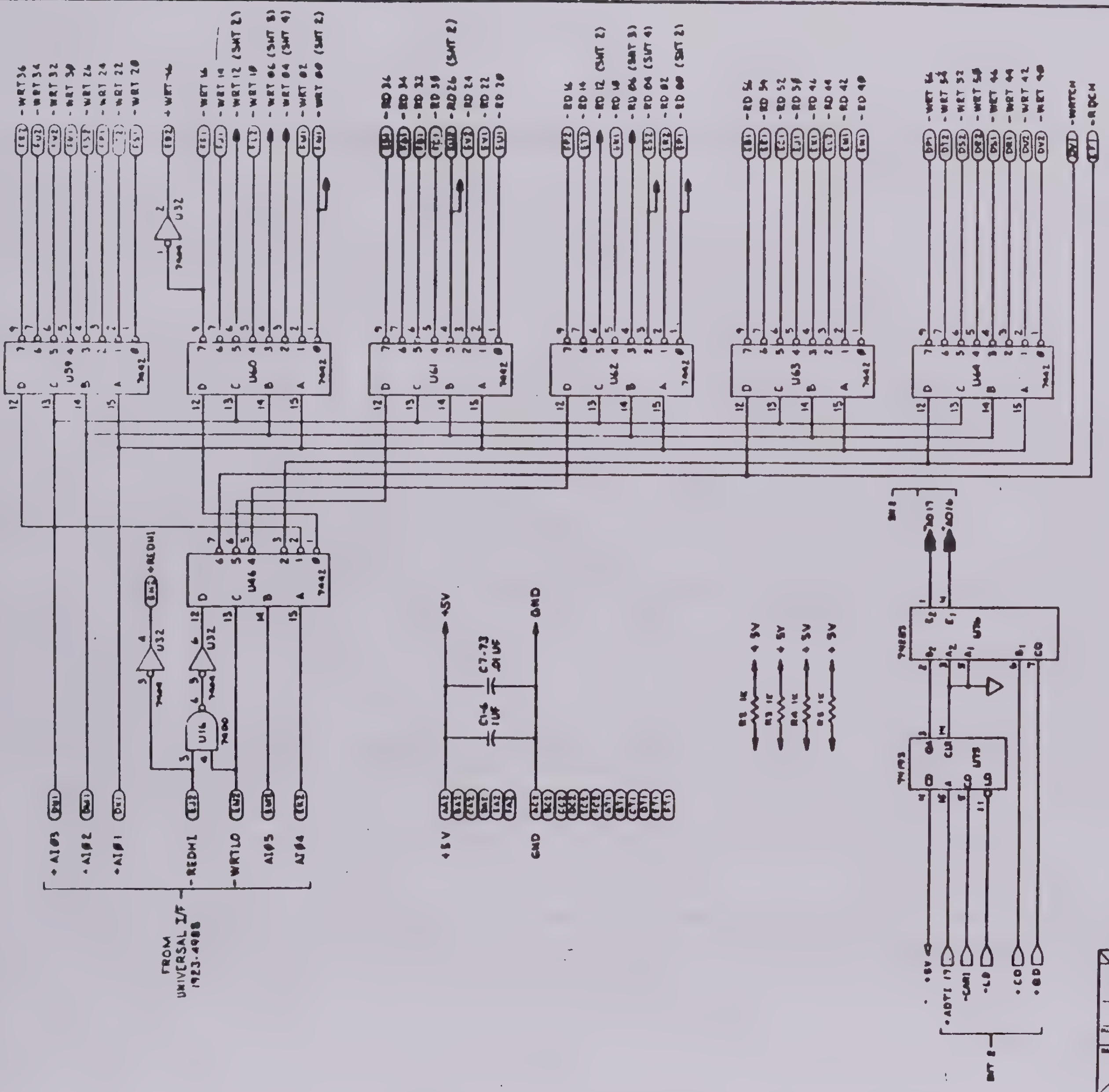
GenRad

ADS DIGITAL BOARD NO 1

SEE 2501-4712-00-IL

D 2501-4712-00

	DESCRIPTION	DATE
1	INITIAL RELEASE	
1A	[illegible]	
2	REV PER ECN 2414	
3	REVISED PER ECN 2876	



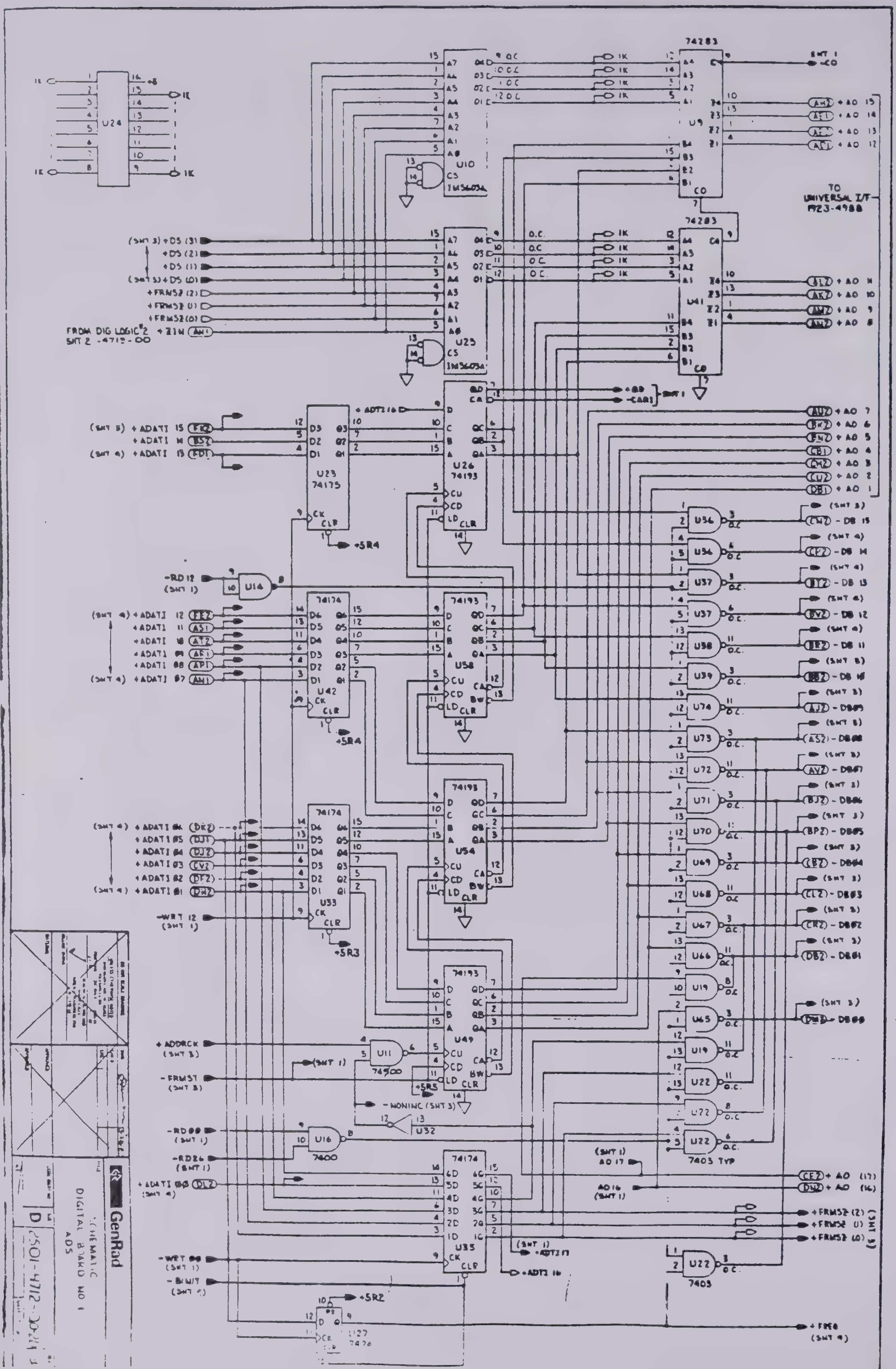
NOTES: UNLESS OTHERWISE SPECIFIED

1. ALL RESISTOR VALUES ARE IN OHMS.
2. ALL CAPACITOR VALUES ARE IN MICROFARADS
3. ALL 14 PIN I.C.'S +5V IS PIN 14 & GND IS PIN 7
4. ALL 16 PIN I.C.'S +5V IS PIN 16 & GND IS PIN 8
5. SYMBOL DEFINITIONS:
   —▷ MEANS SIGNAL CONTINUED ON SAME SHEET
   —● MEANS SIGNAL CONTINUED ON ANOTHER SHEET

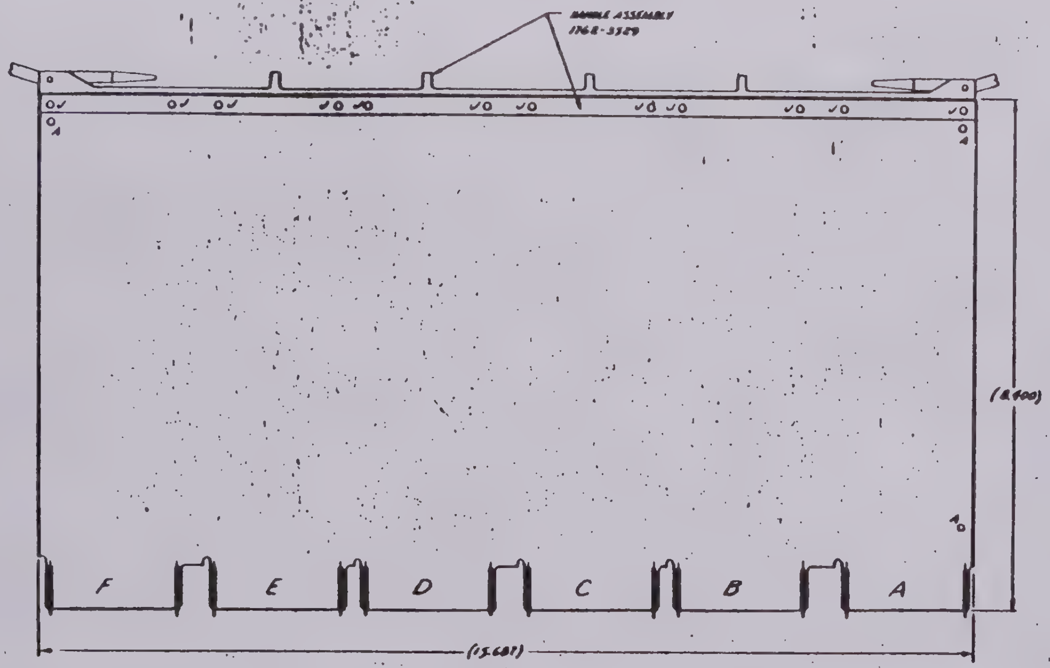
GenRad

SCHEMATIC
DIGITAL BOARD NO. 1
ADS

D 2501-4712-00-2D 3


GenRad
SCHEMATIC
DIGITAL BOARD NO 1
ADS
D
2501-4712-00
TO UNIVERSAL I/F 2023-4988
FROM DIG LOGIC 2 SHT 2 -4712-00
U9
U10
U23
U24
U25
U26
U33
U35
U41
U42
U49
U54
U58
74283
74193
74174
74175
74S00
7400
7403
7403 TYP
7474
IM5603A

BOARD VIEWED FROM COMPONENT SIDE (LAYER 1)



SEE SHEET 2 FOR ASSEMBLY OF COMPONENTS

ADS DIGITAL BD. NO. 2 ASM.

2501-1713-00

ASM TO 2501-0713-00

ASM 7923-0049 (2) AT TP1 & TP2 THIS SIDE AND SWAGE OPP. SIDE

ADS DIGITAL BD. NO. 2 SOLDERED

2501-2713-00

ASM TO 2501-1713-00

ASM ALL COMPONENTS IN APPROPRIATE HOLES AS SHOWN THIS SIDE AND SOLDER OPP. SIDE

ADS DIGITAL BD. NO. 2 COMPLETE

2501-4713-00

ASM TO 2501-2713-00

ASM HANDLE ASSEMBLY 1762-3601 IN "J" HOLES WITH APPROPRIATE HARDWARE AS SHOWN.

SYM	REVISIONS
6	RE DESIGNED PER ECN
7	PER ECN 2595

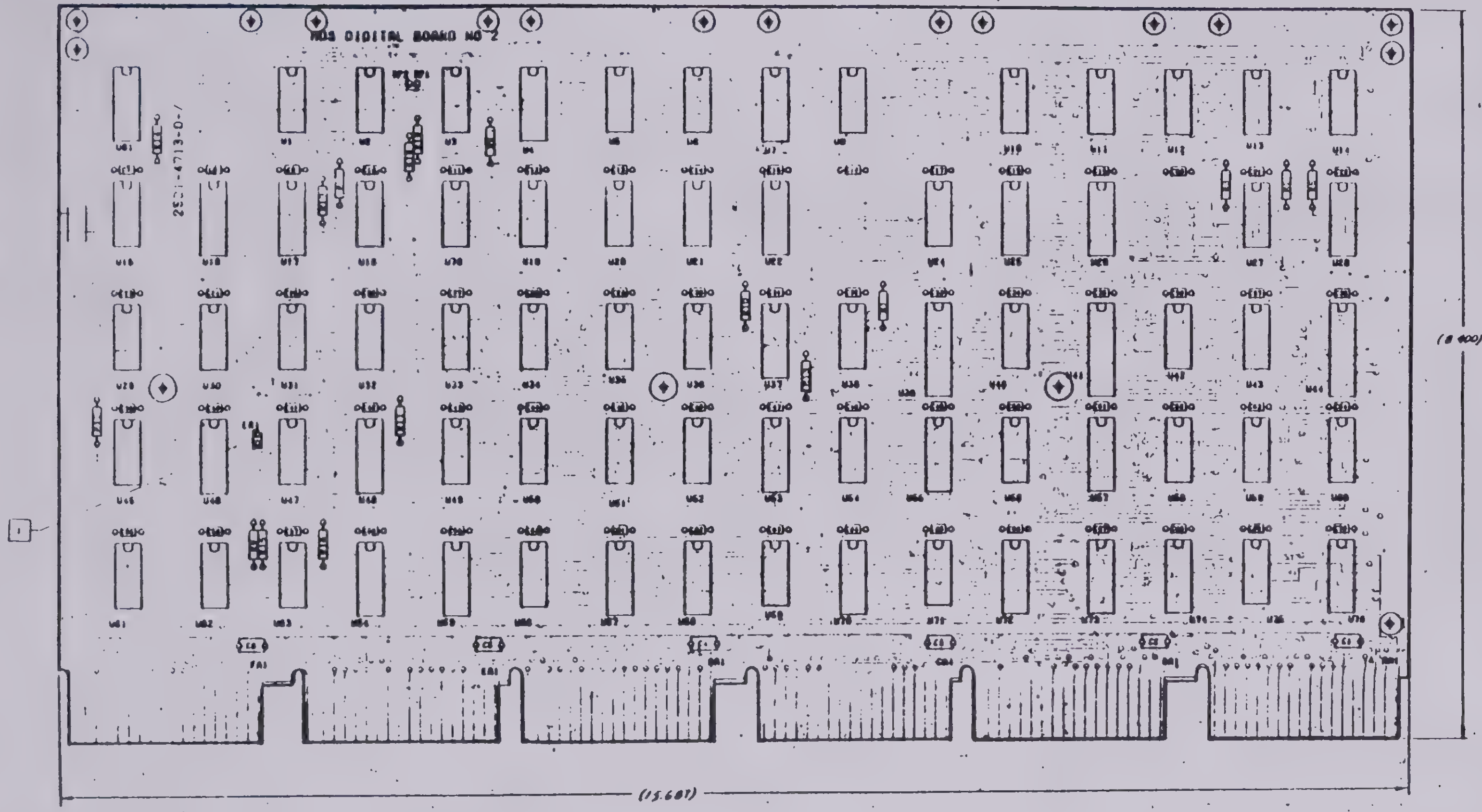
BOARD NO. 2501-0713-00/2

ADS DIGITAL BD NO.

SHEET 1 OF 2

GenRad

D 2501 4713



1 INSTALL JUMPER AT TIME OF AS

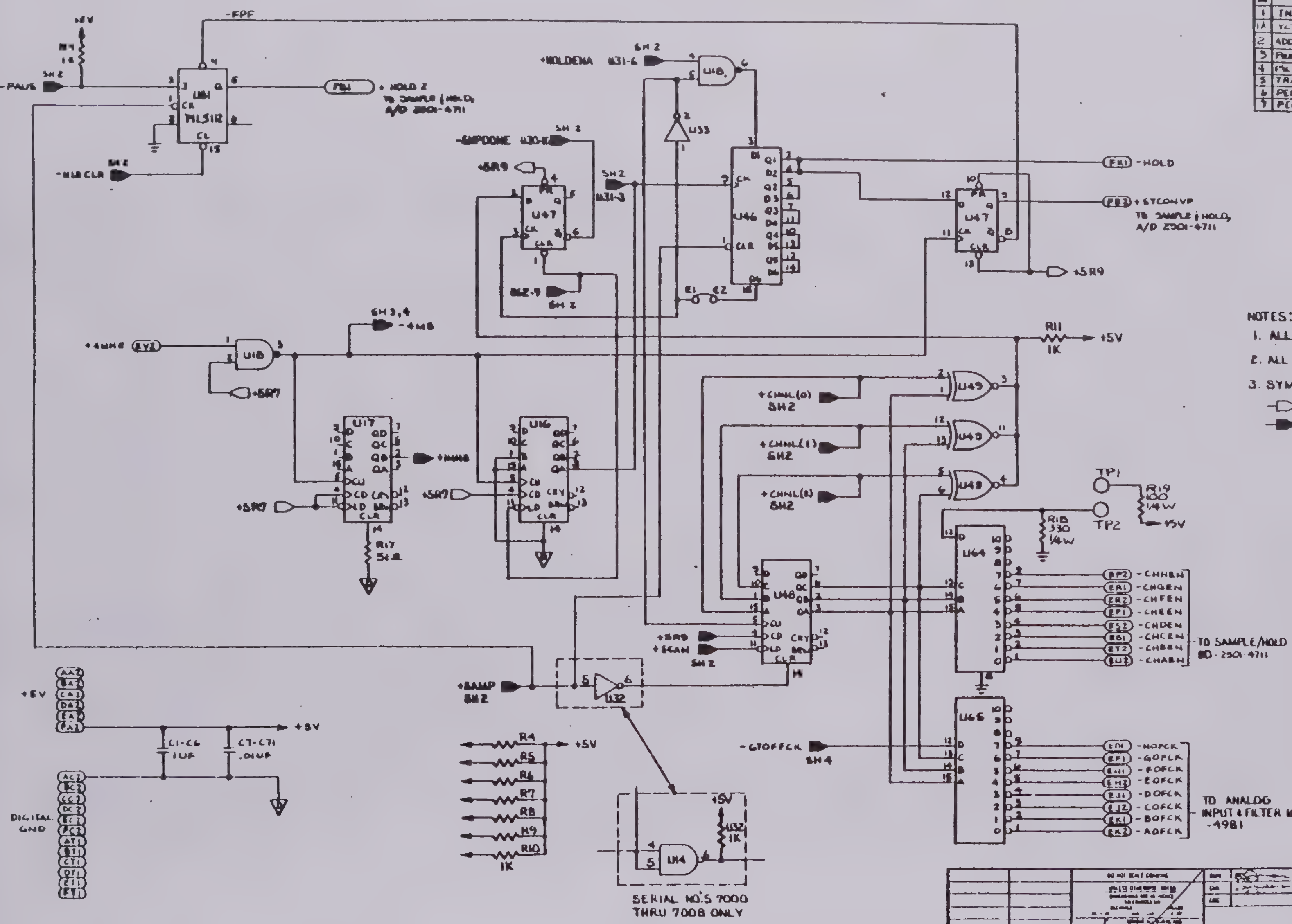
SEE SHEET 1 FOR ASSEMBLY NOTES

ADS DIGITAL BOARD N

GenRad

2501-4713 00

	REVISIONS	
1	INITIAL REL	[illegible]
1A	TRACK PER ECN 2369	[illegible]
2	ADD LINE (U47-8 & U81-4) PER ECN 2379	[illegible]
3	PER ECN 2406	[illegible]
4	REVISED PER ECN 2413	[illegible]
5	TRACKING PER ECN 2434	[illegible]
6	PER ECN 2459	[illegible]
7	PER ECN 2593	[illegible]



NOTES:

1. ALL RESISTOR VALUES ARE IN OHMS
2. ALL CAPACITOR VALUES ARE IN MICROFARADS
3. SYMBOL DEFINITIONS:
   - ▷ MEANS SIGNAL CONTINUED ON SAME SHEET
   - ▶ MEANS SIGNAL CONTINUED ON ANOTHER S[HEET]

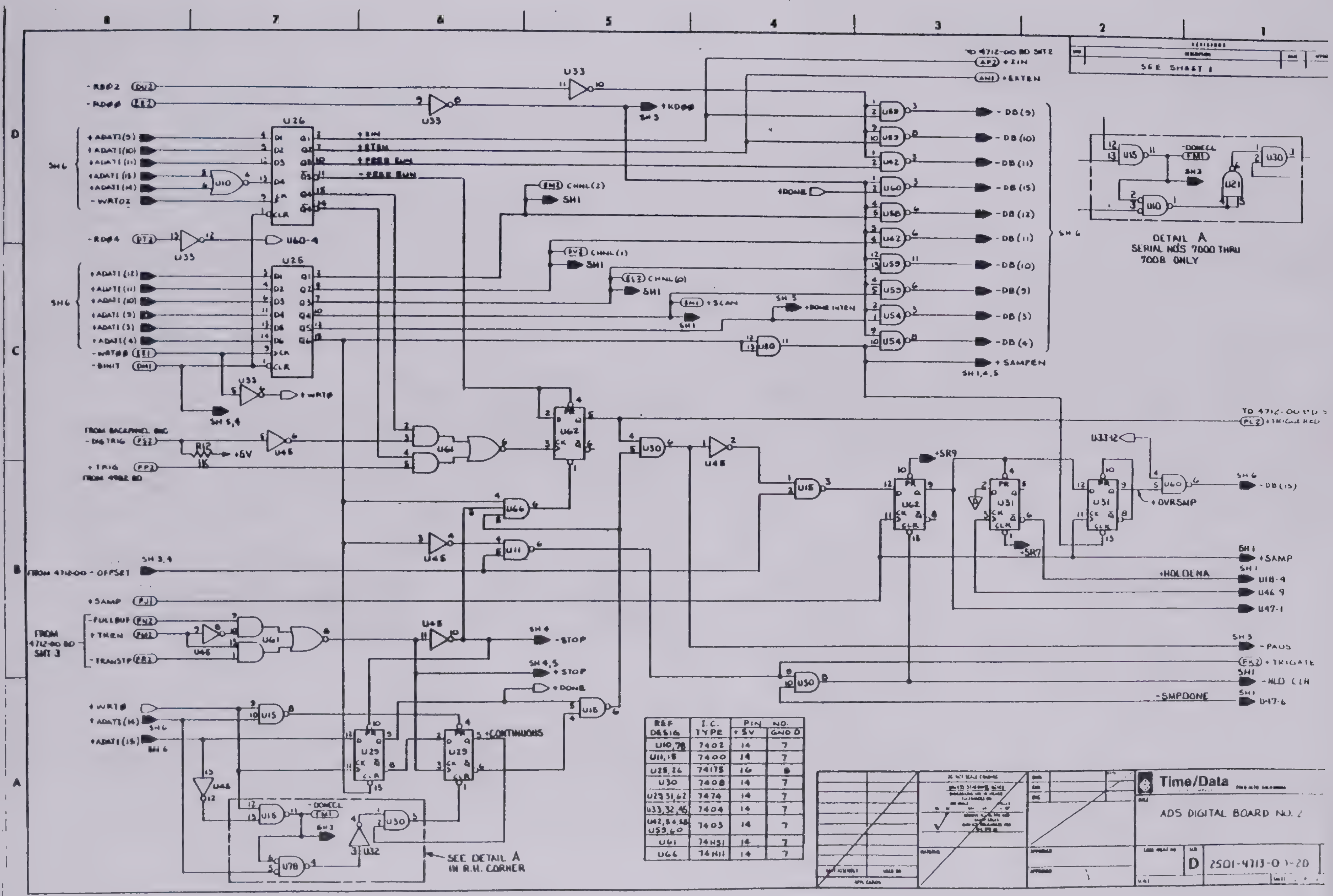
REF DESIG	I.C. TYPE	PIN NO. +5V	PIN NO. GND D
U16, 17, 48	74193	16	8
U18	7437	14	7
U81	74LS112	16	8
U32,33	7404	14	7
U46	74174	16	8
U47	7474	14	7
U49	8242	14	7
U64,65	7442	16	8

Time/Data

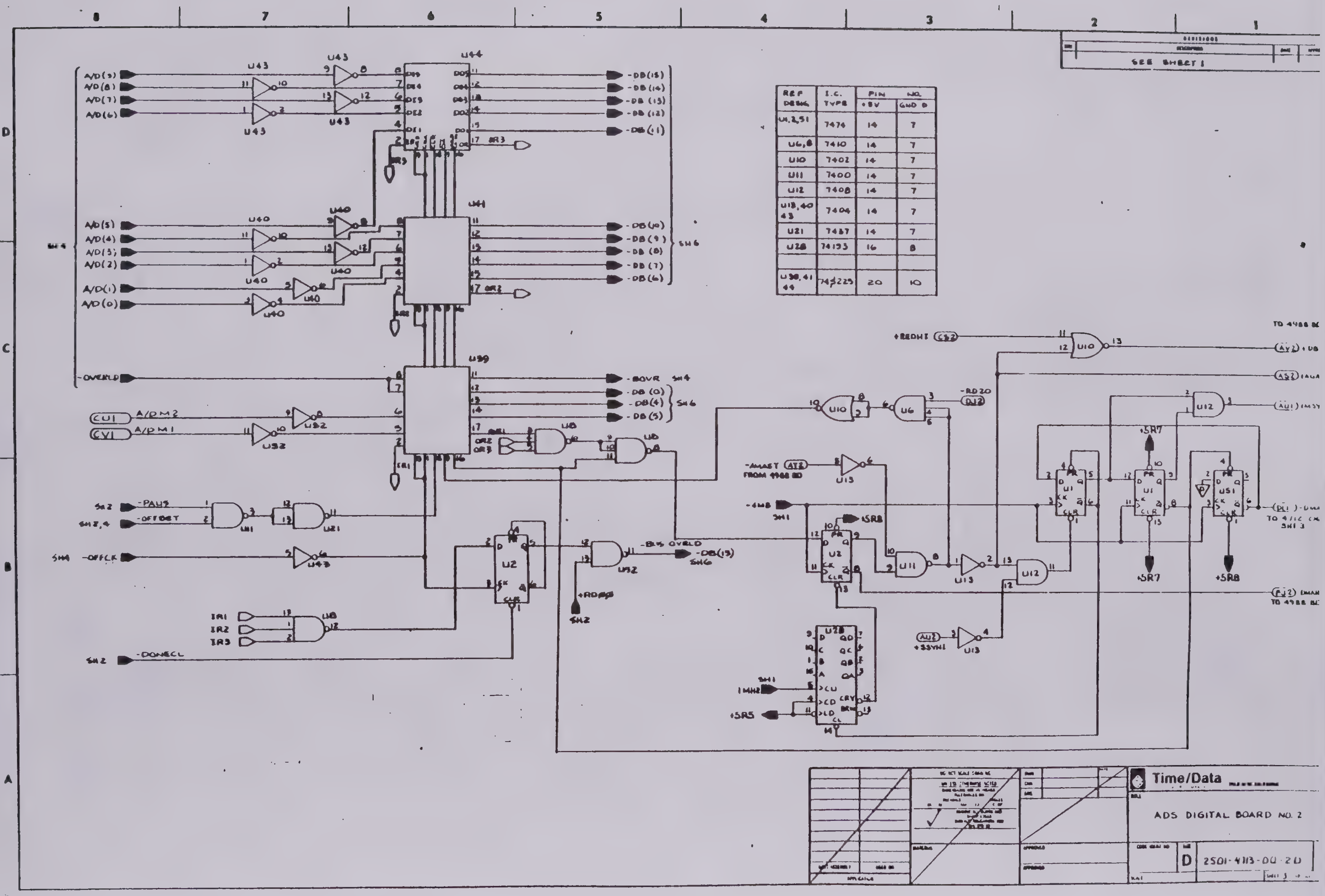
ADS DIGITAL BOARD NO. 2

D 2501-4713 [illegible]

2501-4713-00



REF DESIG	I.C. TYPE	PIN NO. +5V	PIN NO. GND D
U10,78	7402	14	7
U11,15	7400	14	7
U25,26	74175	16	8
U30	7408	14	7
U29,31,62	7474	14	7
U33,32,45	7404	14	7
U42,54,58, U59,60	7403	14	7
U61	74H51	14	7
U66	74H11	14	7

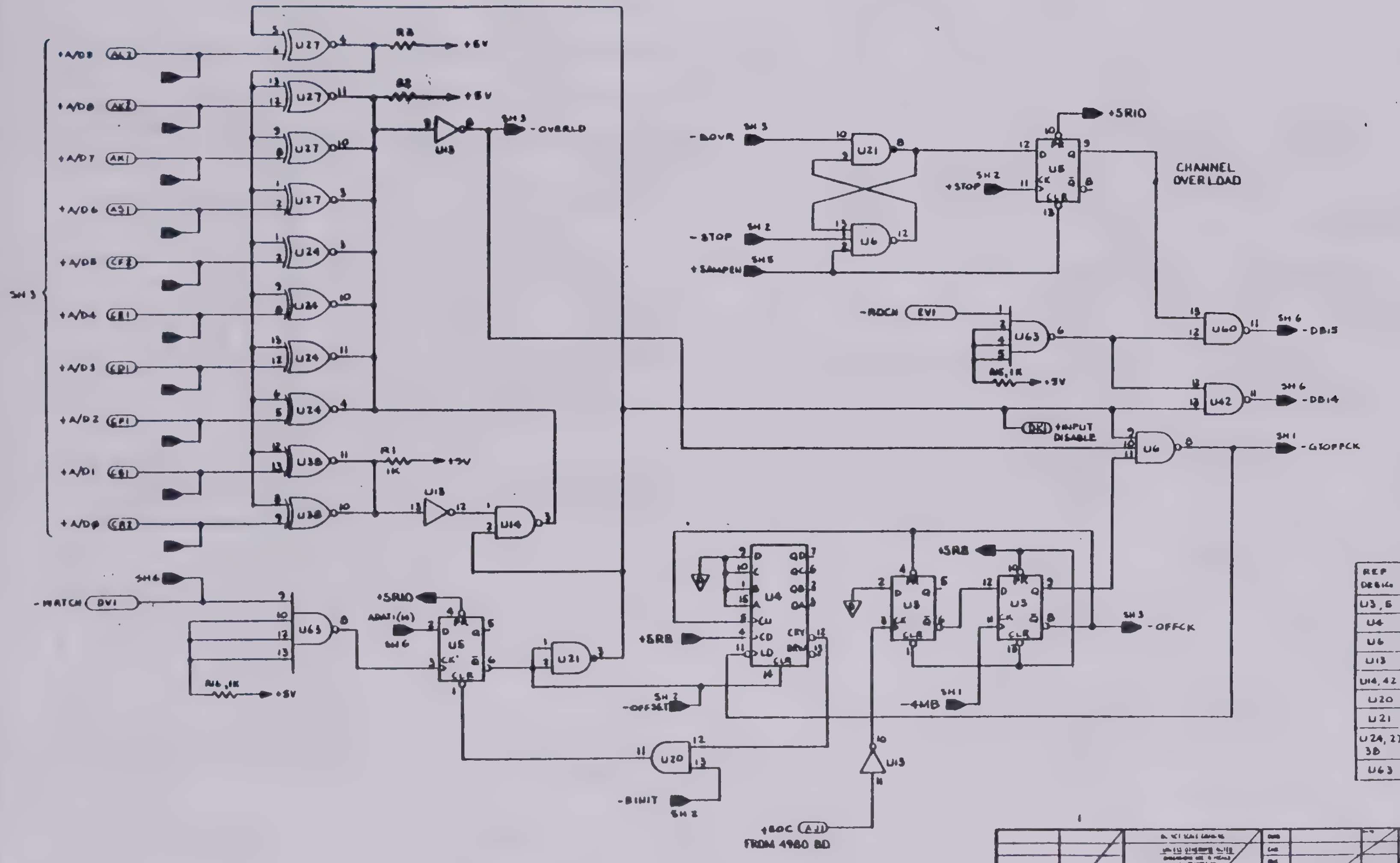


REF DESIG.	I.C. TYPE	PIN NO. +5V	PIN NO. GND
U1,2,51	7474	14	7
U6,8	7410	14	7
U10	7402	14	7
U11	7400	14	7
U12	7408	14	7
U13,40 43	7404	14	7
U21	7437	14	7
U28	74193	16	8
U39,41 44	74S225	20	10

Time/Data

ADS DIGITAL BOARD NO. 2

D 2501-4113-00-2D



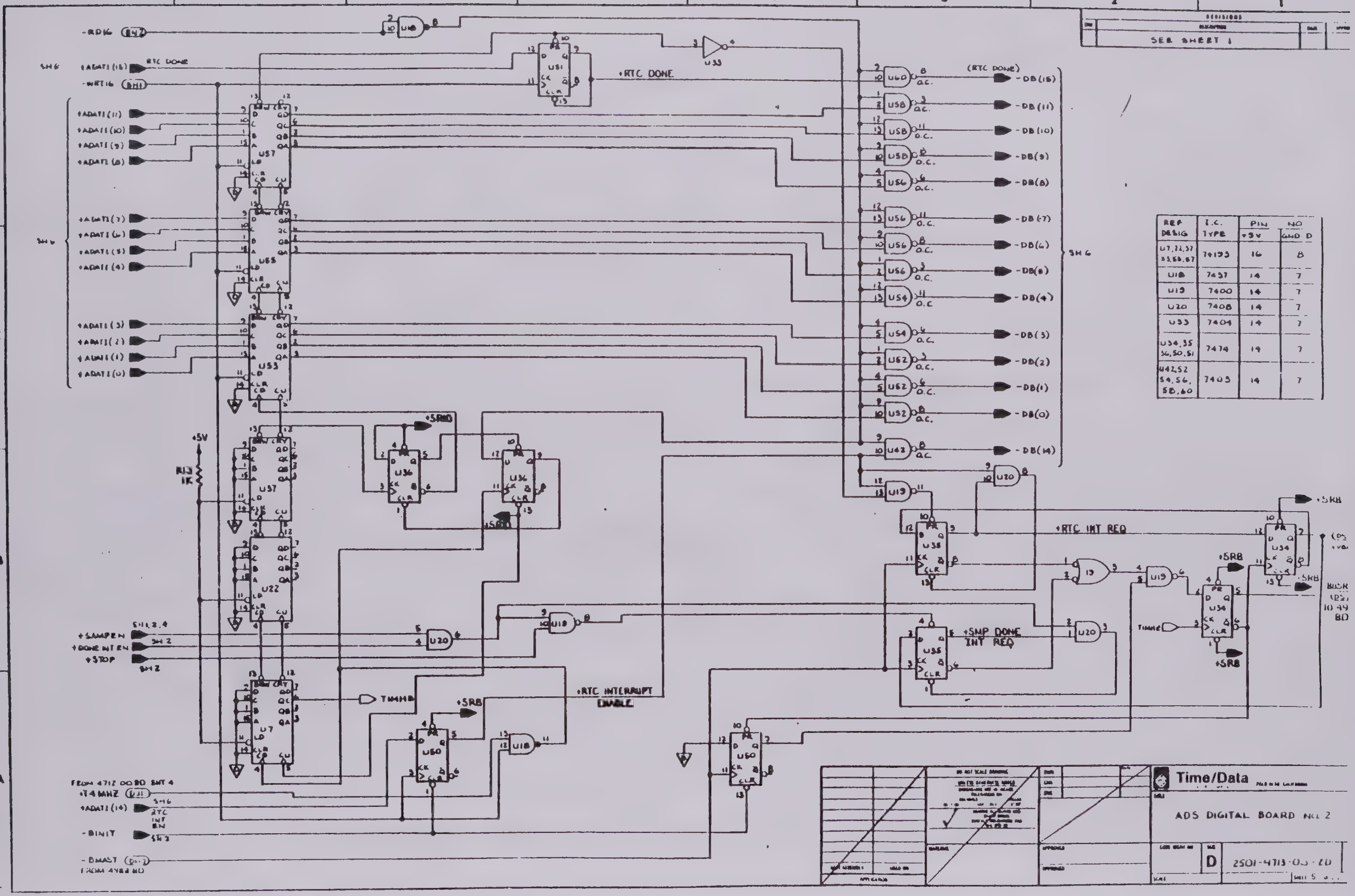
REF DESIG	I.C. TYPE	PIN NO +5 V	PIN NO GND D
U3, 5	7474	14	7
U4	74193	16	8
U6	7410	14	7
U13	7404	14	7
U14, 42	7403	14	7
U20	7408	14	7
U21	7437	14	7
U24, 27, 38	8242	14	7
U63	7440	14	7

SEE SHEET 1

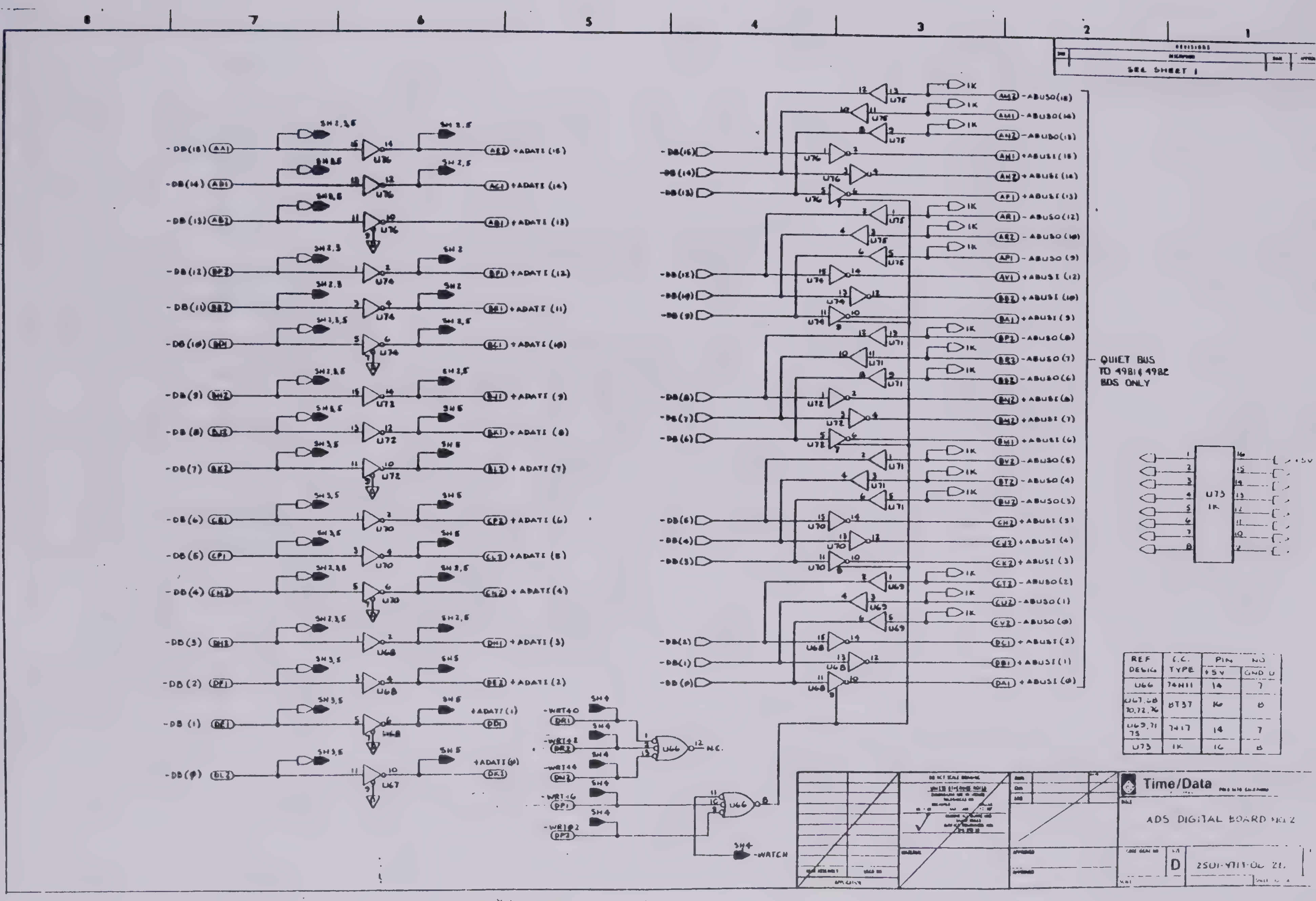
Time/Data

ADS DIGITAL BOARD No. 2

D 2501-4715-00-2D

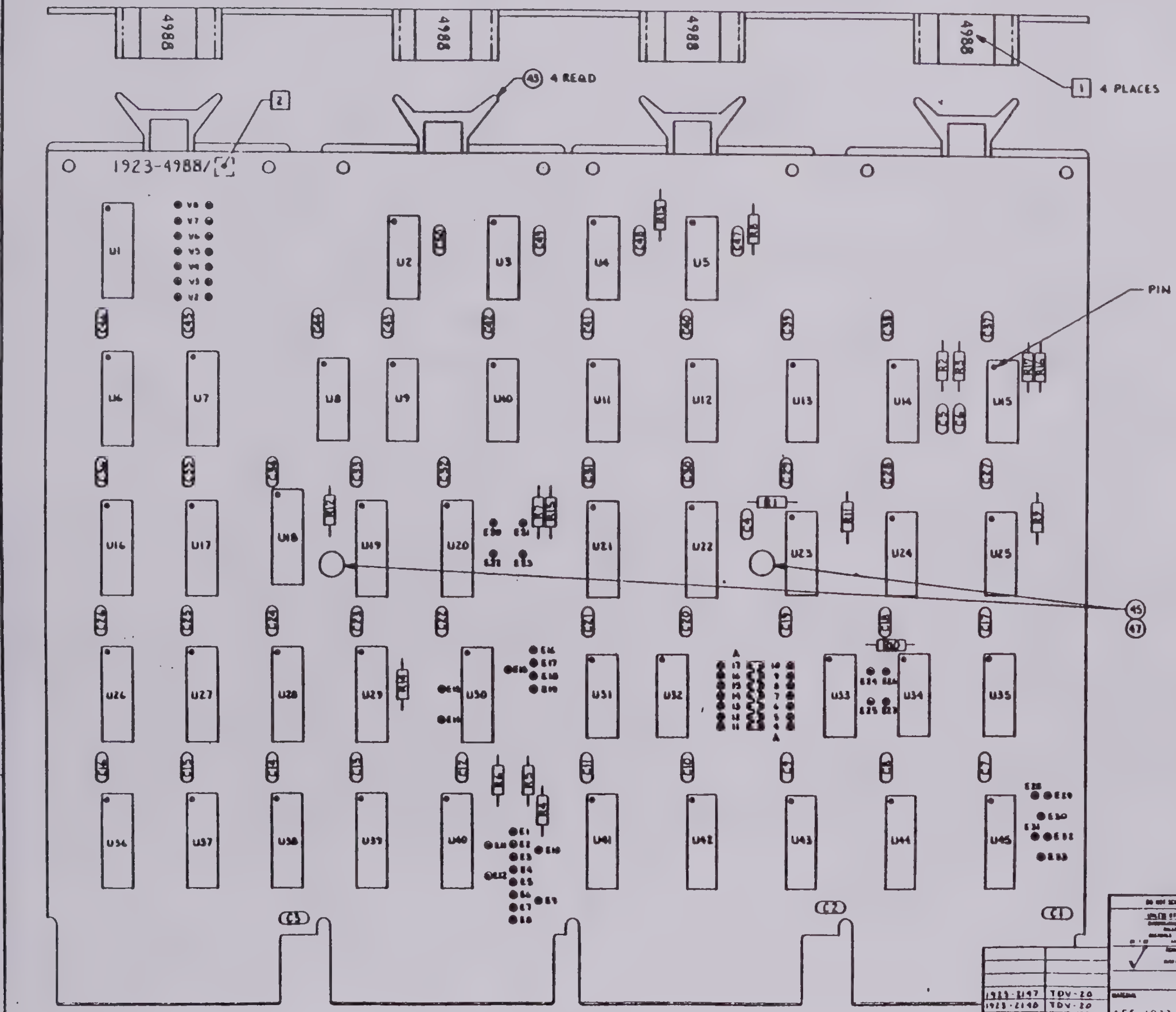


REF DESIG	I.C. TYPE	PIN NO +5V	PIN NO GND D
U7,22,37 53,55,57	74193	16	8
U18	7437	14	7
U19	7400	14	7
U20	7408	14	7
U33	7404	14	7
U34,35 36,50,51	7474	14	7
U42,52 54,56, 58,60	7405	14	7



REF DESIG	I.C. TYPE	PIN +5V	NO GND
U66	74H11	14	7
U67,68 70,72,76	8T37	16	8
U69,71 75	7417	14	7
U73	1K	16	8

REV	DESCRIPTION	DATE	APPROVED
D	SEE ECN 1673	4-21-76	[illegible]
1	RELEASE PER PRB 3039 = REV D	6-7-76	[illegible]
2	SEE ECN 1827	[illegible]	[illegible]



NOTES:

1. MARK LAST FOUR DIGITS OF PART NO. 4988 USING .12 HIGH CHARACTERS, COLOR BLACK, LOCATE APPROX. WHERE SHOWN.
2. MARK APPLICABLE REV NO. USING .12 HIGH CHARACTERS, COLOR BLACK, LOCATE APPROX WHERE SHOWN.
3. JUMPERS TO BE INSTALLED AT SYSTEM LEVEL.

3 JUMPER CHART

TDV-20 ADS	TDV-20 DAS
V2	V3
	V8
V6	A5
V8	A7
A6	A8
A7	A9
A8	A10
A9	A12
A10	E20 TO E21
A12	E22 TO E23
E22 TO E23	E13 TO E14
E15 TO E14	E15 TO E16
E15 TO E16	E24 TO E25
E29 TO E30	E11 TO E12
E31 TO E33	E1 TO E10
E1 TO E10	E5 TO E9
E11 TO E12	E29 TO E30
E5 TO E9	E31 TO E33
E20 TO E21	E2 TO E6
E2 TO E6	E3 TO E7
E3 TO E7	E4 TO E8
E4 TO E8	

NEXT ASSY	USED ON
1923-2147	TDV-20
1923-2148	TDV-20

SEE 1923-4988-IL

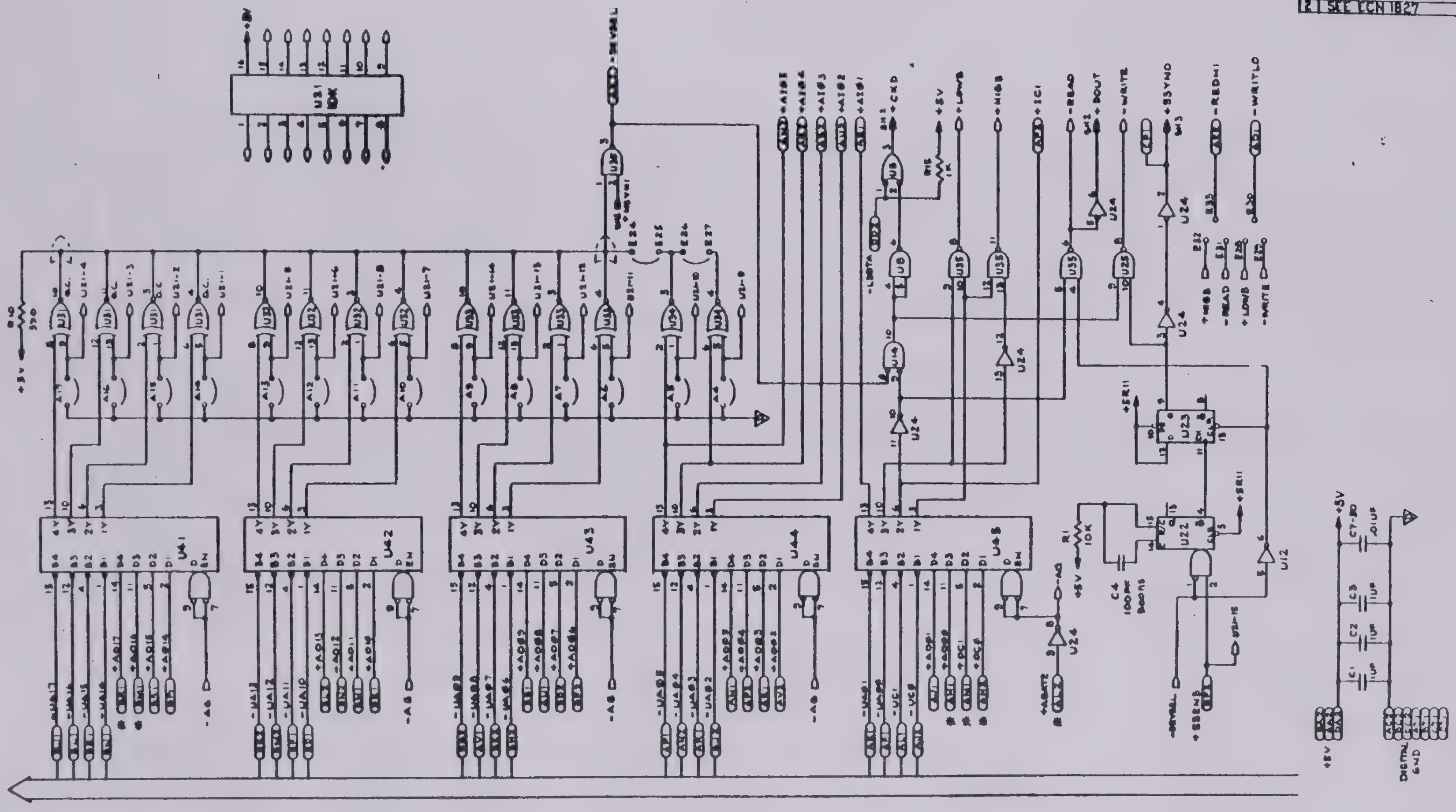
Time/Data

CARD ASSEMBLY
UNIVERSAL INTERFACE

D 1923-4988-ID 2

SCALE 2/1

B	PROTOTYPE	
1	RELEASE PER PRB 3039 = REV B	
2	SEE ECN 1827	



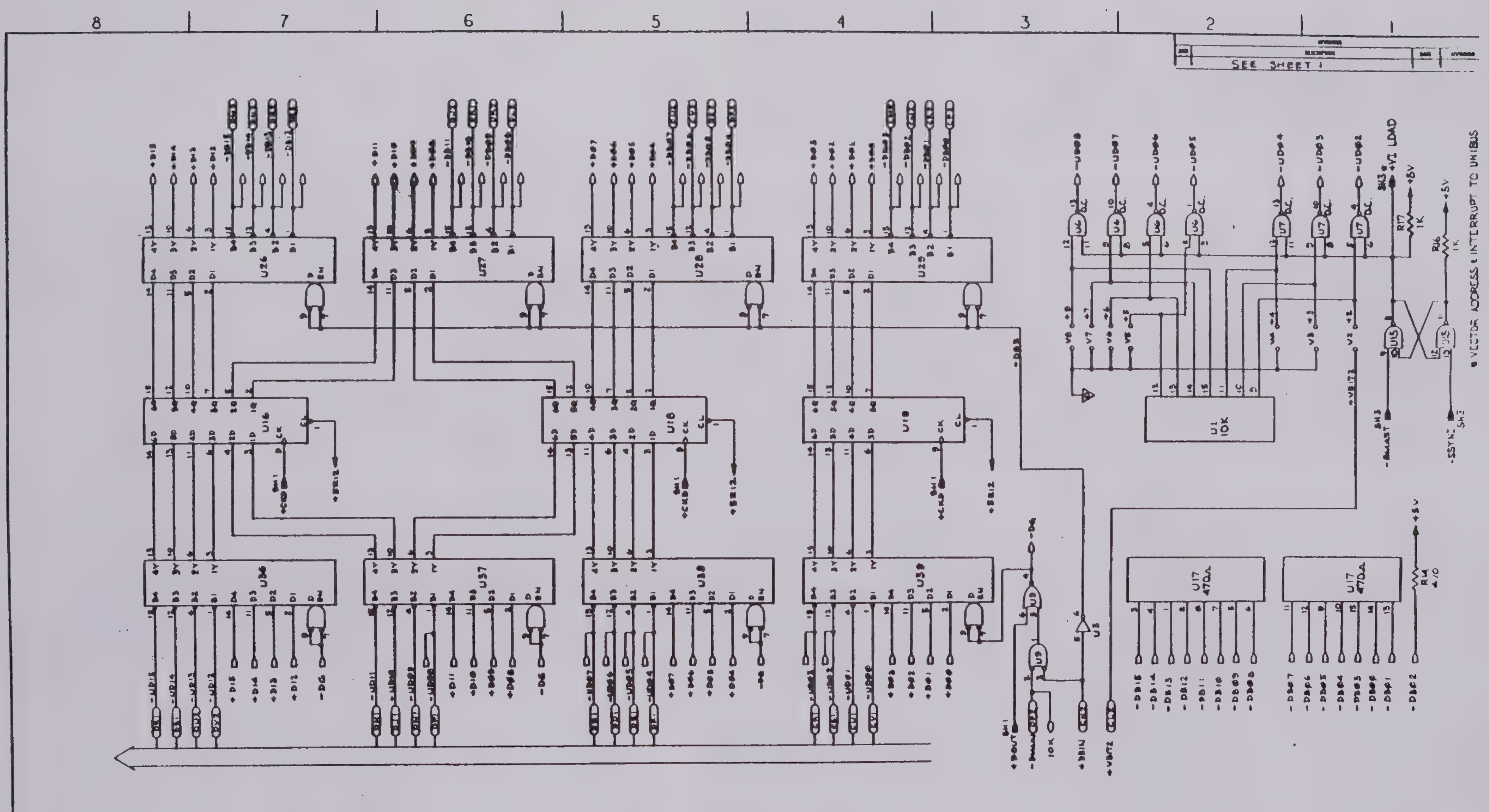
NOTES: UNLESS OTHERWISE SPECIFIED
1. * TIE TO GND IF NOT USED
2. ALL RESISTOR VALUES ARE IN OHMS
3. SYMBOL DEFINITIONS:
-○ DENOTES SIGNAL CONTINUED ON SAME SHEET
-● DENOTES SIGNAL CONTINUED ON ANOTHER SHEET

REF DESIG	I.C. TYPE	PIN NO. +5V	PIN NO. GND
U8	7437	14	7
U12,24	7404	14	7
U14	7402	14	7
U21	10K PULL-UP	16	-
U22	74123	16	8
U23	7474	14	7
U25,35	7400	14	7
U31,32, 33,34	8242	14	7
U41,42, 43,44,45	8T38	16	8

TIME/DATA

UNIVERSAL INTERFACE
LOGIC DIAGRAM

D 1923-4988

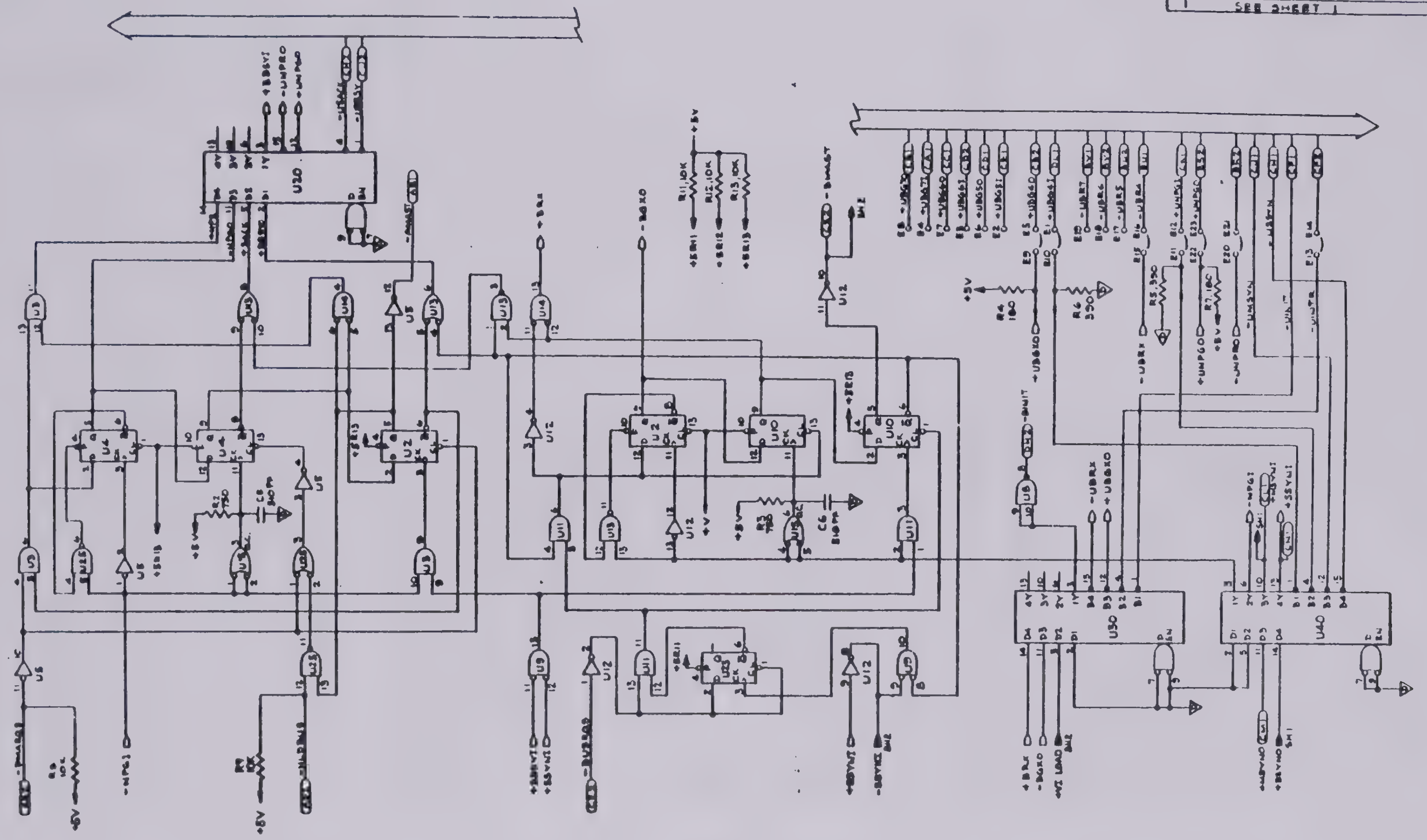


REF DESIG	I.C. TYPE	PIN NO. +5V	PIN NO. GND
U1	10K PULL-UP	-	-
U5	7404	14	7
U6,7	8881	14	7
U8	7437	14	7
U9	7402	14	7
U16,18,19	74174	16	8
U17	470 PULL-UP	16	-
U26,27,28,29,36,37,38,39	8T38	16	8

TIME/DATA

UNIVERSAL INTERFACE
LOGIC DIAGRAM

D 1923-4288-20 2



SEE SHEET 1

REF DESIG	I.C. TYPE	PIN NO. +5V	PIN NO. GND
U2,4,10,21	7474	14	7
U3 11	74H08	14	7
U5,12	7404	14	7
U8	7437	14	7
U9,14	7402	14	7
U13,25	7400	14	7
U15	7403	14	7
U20,30,40	8T10	16	8

TIME/DATA

UNIVERSAL INTERFACE
LOGIC DIAGRAM

D 1923-4988

1923-4988 UNIVERSAL INTERFACE

JUMPERS PROGRAMMING EXAMPLE

1. Preliminary

As a programming example it is assumed that the assembly procedure will call not to insert any of the jumpers during the fab stage.

Definition of a jumper is a connection medium to provide electrical continuity from jumper point "A" to point "B" of a specified jumper name (ex. "A17").

Refer to assembly drawing 1923-4988-10 for jumpers location.

2. Device Select (or Address Programming)

For DEVSEL programming the jumpers are:

A4 through A17
E24 through E27

Example:

To program for a device #1640xx insert the following jumpers:

A6, A7, A8, A9, A10, A12

This jumper set will not decode the two least significant digits, providing the device with a field of 32 sequential addresses.

3. Read and Write

Usually R/W jumpers are programmed for word operation

E31 to E33, and E29 to E30

If byte mode is to be used program as follows:

E32 to E33, and E28 to E30

4. Vector Address

To program for dual vector (ex. 260-264) jump V2 through V8 as follows:

V2, V3, V6, V8

5. Bus Priority (4 through 7)

To operate in priority 4 jump: (E8 TO E4, E7 TO E3, E6 TO E2, FOR GRANT CONTINUITY)

-UBRX = E15 connected to E16
+UBGXI = E10 connected to E1
+UBGXO = E9 connected to E5

6. If DMA mode needs to be operational, connect jumper as follows:

-UINTR , jump E13 to E14
-UNPRO , jump E20 to E21
+UNPGO , jump E22 to E23
+UNPGI , jump E11 to E12

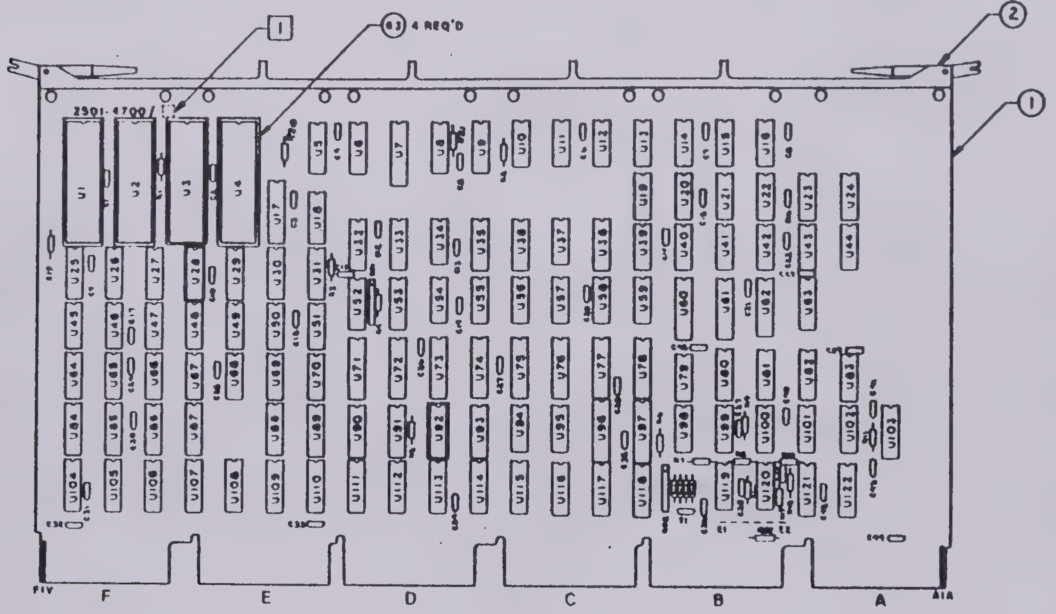
DWN	CHK	APPR

TITLE UNIVERSAL INTERFACE LOGIC DIAGRAM
TIME/DATA
DRAWING NO. 1923-4988-2D
REV 2
SHEET 4

REVISION - SEE SHEET 1

2501-4700-1D/REV9

REV	DESCRIPTION
1	INITIAL RELEASE
2	[illegible]
3	PER ECN 2207
4	PER ECN 2356
5	[illegible]
6	TRACKING PER ECN 2418
8	ADDED R22 PER ECN 2676
9	REVISED PER ECN 2819



NOTES:

1. MARK APPLICABLE REV. NO. USING .12 MIN. HIGH CHARACTERS, COLOR BLACK, WHERE SHOWN.
2. AFTER WAVE SOLDERING CLIP ALL I.C. LEADS.

GenRad

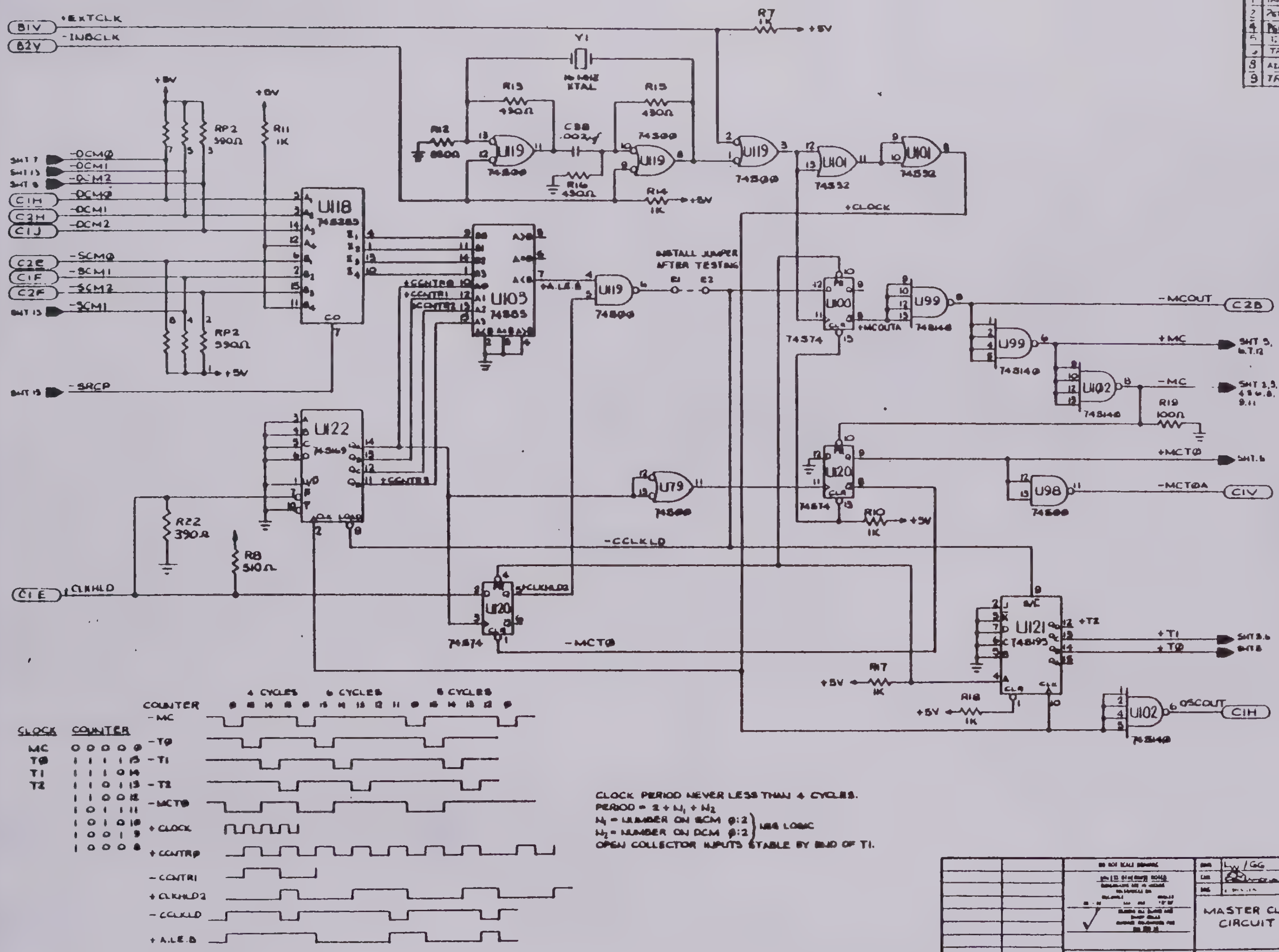
CPU ASSEMBLY DWG.

2501-2000	2501

D 2501-4700-1D 9

SCALE 1/1

LTR	DESCRIPTION		
1	INITIAL RELEASE		
2	[illegible] ECN 2144/2155		
4	[illegible] ECN 2256		
5	TRACKING [illegible] ECN 2319		
7	TRACKING PER ECN 2448		
8	ADDED R22 PER ECN 2676		
9	TRACKING ECN 2819		



CLOCK PERIOD NEVER LESS THAN 4 CYCLES.
PERIOD = 2 + N_1 + N_2
N_1 = NUMBER ON SCM Ø:2 } NEG LOGIC
N_2 = NUMBER ON DCM Ø:2 }
OPEN COLLECTOR INPUTS STABLE BY END OF T1.

I.C. TABLE				
QTY	IC TYPE	REFERENCE DESIGNATION	[illegible]	[illegible]
11	74S00	U16 22 57 43 55 56,66,67,79,98,119	14	7
1	74S02	U41	14	7
1	74S03	U39	14	7
7	74S04	U10 21,24 48,54,69,94	14	7
5	74S08	U23,40 47 56,68	14	7
4	74S10	U42,50 65 70	14	7
1	74S11	U20	14	7
1	74S20	U59	14	7
6	74S32	U19 44 45,83 95,101	14	7
1	74S64	U34	14	7
4	74S74	U51,57,100,120	14	7
2	74S85	U33,123	16	8
2	74S86	U46,49	14	7
5	74S138	U53 85,104	16	8
2	74S139	U105 106	16	8
2	74S140	U99 102	14	7
3	74S151	U35 36 38	16	8
3	74S169	U92 93,122	16	8
3	74S174	U86 87 107	16	8
2	74S175	U18 32	16	8
1	74S182	U28	16	8
1	74S195	U121	16	8
1	74S283	U118	16	8
4	74LS125	U11 13 15 64	14	7
2	74LS126	U12 14	14	7
2	74LS153	U62 63	16	8
2	74LS156	U5 9	16	8
4	74LS158	U88-91	16	8
2	74LS175	U6 8	16	8
1	74LS240	U7	20	10
9	74LS244	U17 60 61 73 75 76,78,96 97	20	10
1	74LS253	U84	16	8
4	74LS374	U71,72,74,77	20	10
8	74LS399	U25-27,29-31,80 81	16	8
1	74147	U82	16	8
1	74148	U52	16	8
10	AM9701	U108-117	16	8
4	AM2901A	U1-4	40	30

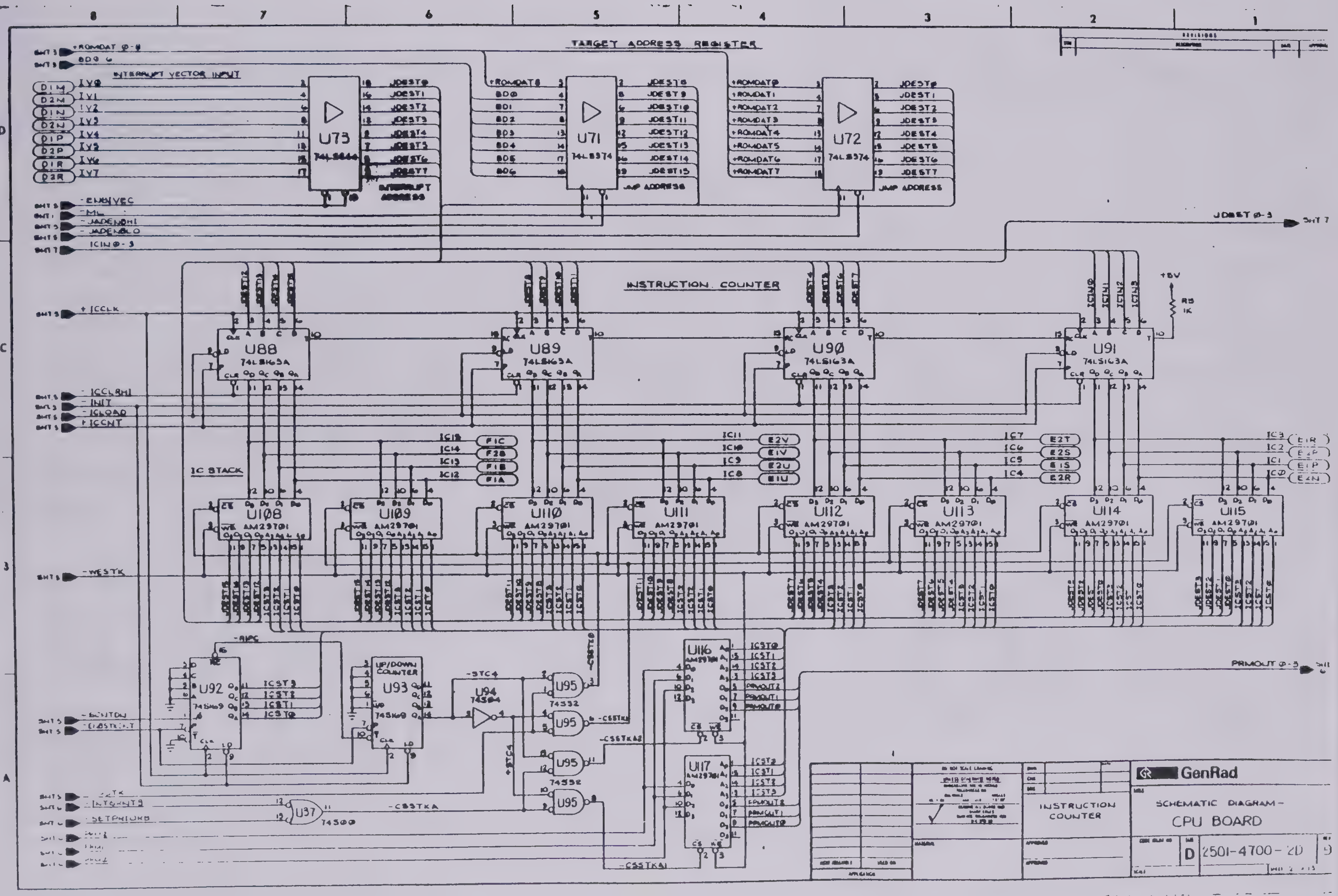
REF DES	
LAST USED	NOT USED
C38	
E6	
R21	
RP2	
Y1	

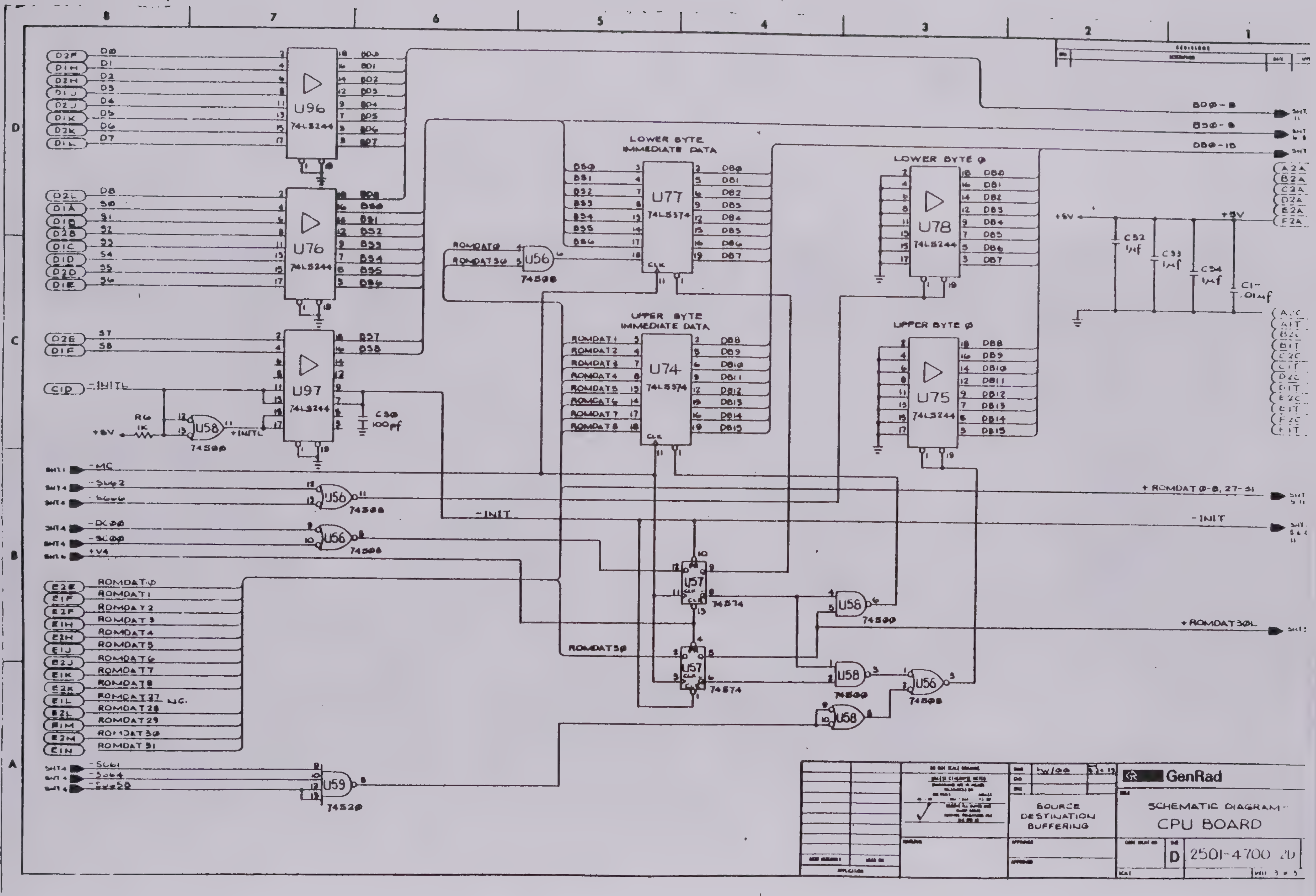
GenRad

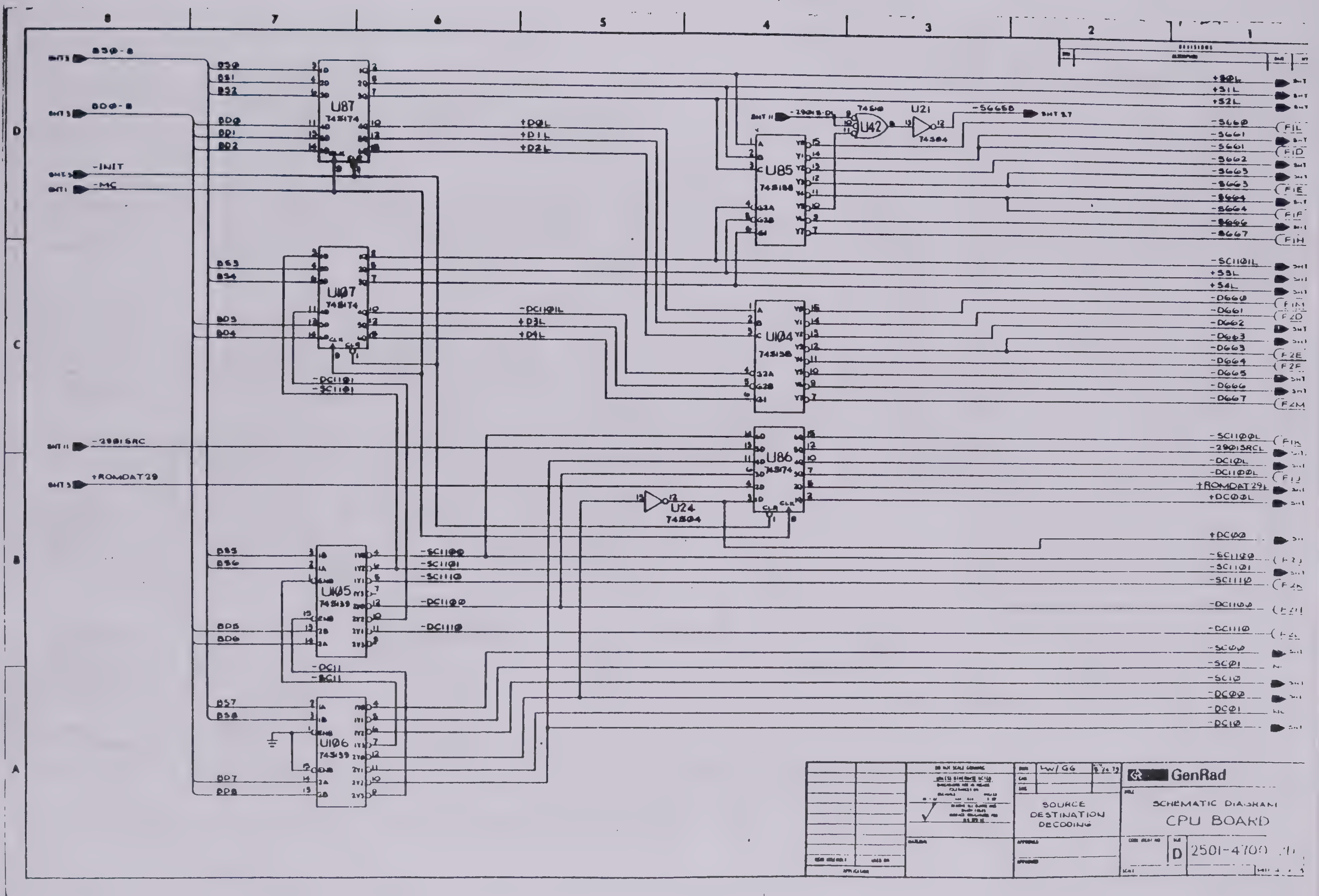
MASTER CLOCK CIRCUIT

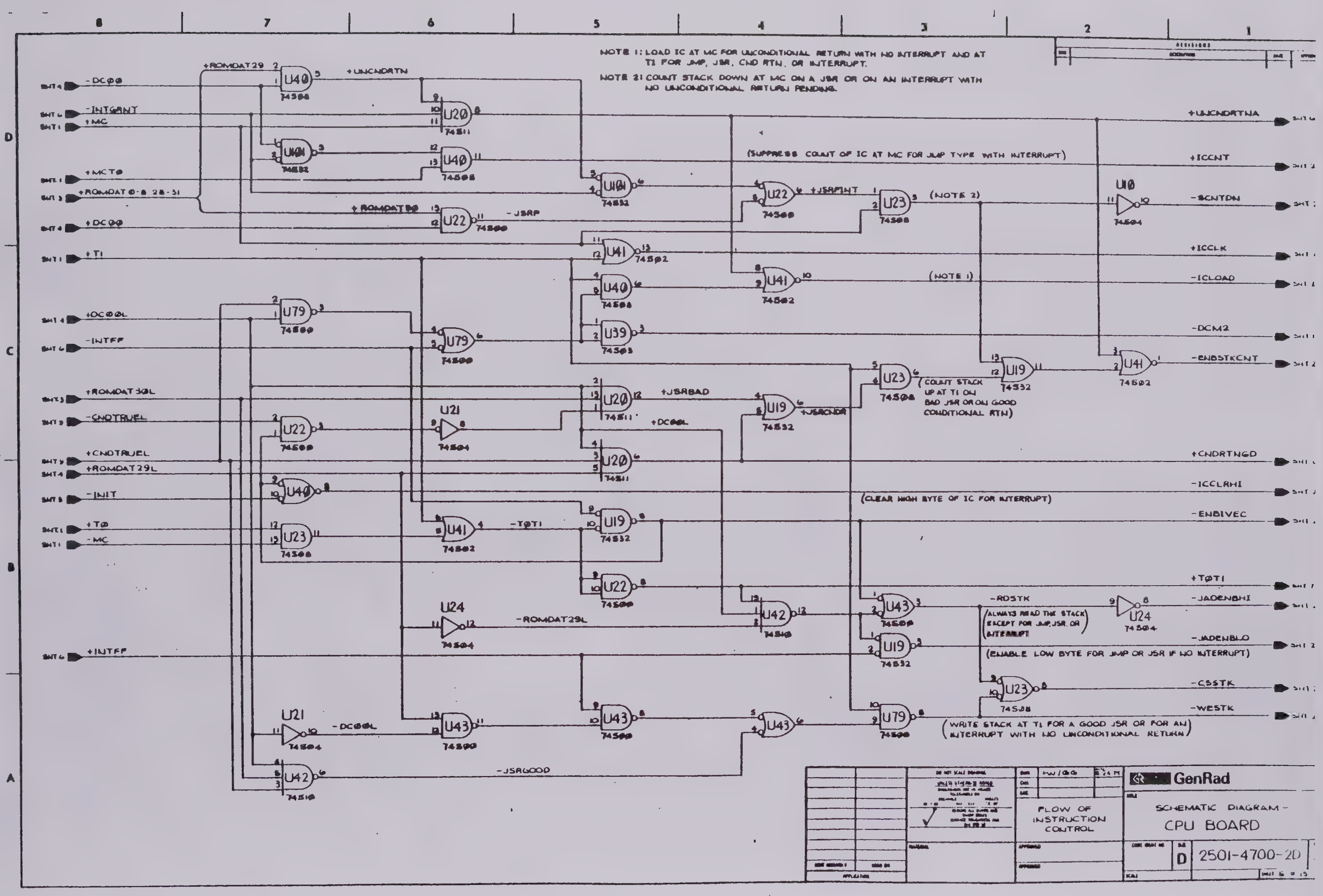
SCHEMATIC DIAGRAM - CPU BOARD

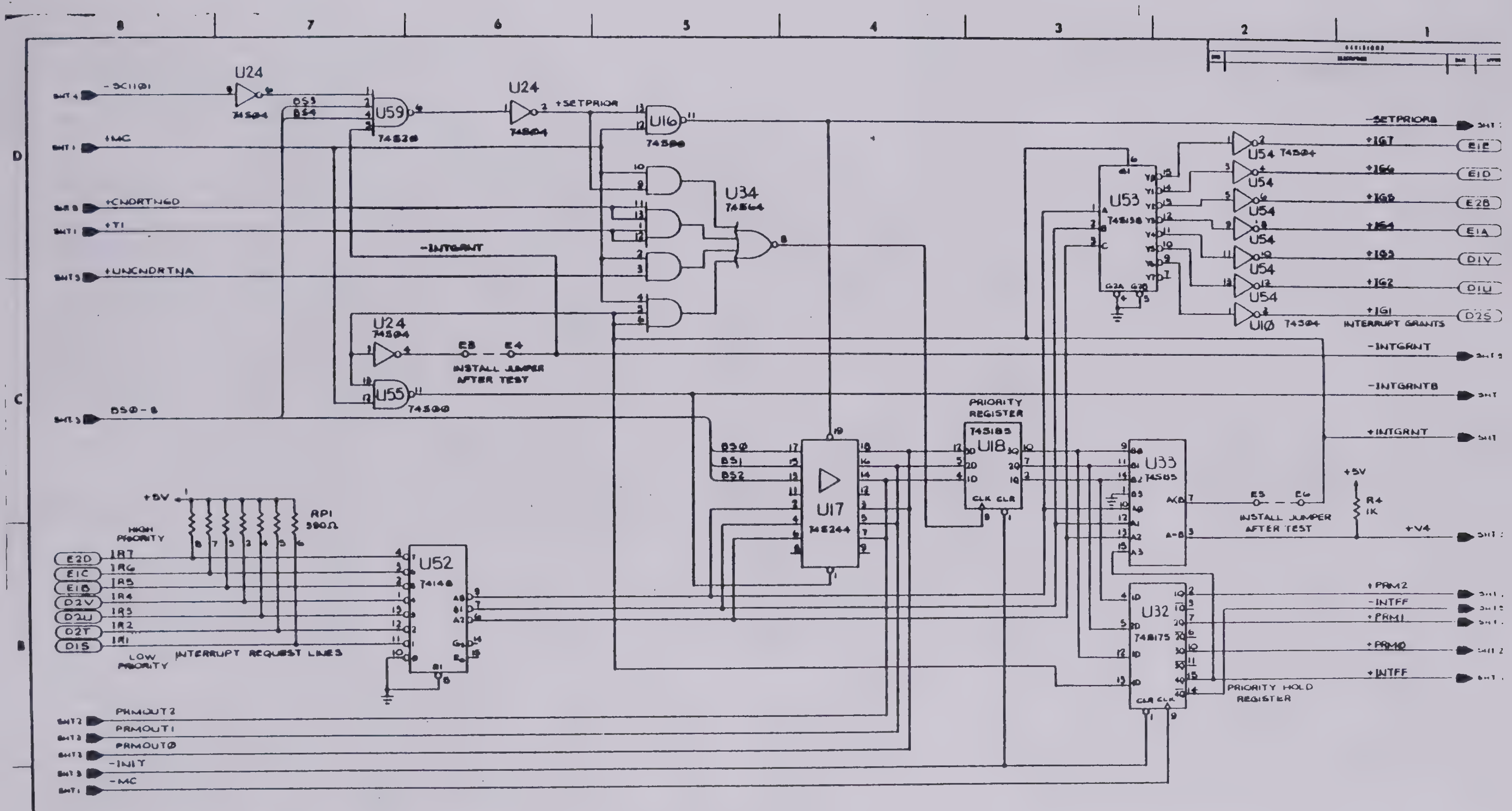
D 2501-4700-2D


TARGET ADDRESS REGISTER
INTERRUPT VECTOR INPUT
INTERRUPT ADDRESS
JMP ADDRESS
INSTRUCTION COUNTER
IC STACK
U73
U71 74LS374
U72 74LS374
U88 74LS163A
U89 74LS163A
U90 74LS163A
U91 74LS163A
U108 AM29701
U109 AM29701
U110 AM29701
U111 AM29701
U112 AM29701
U113 AM29701
U114 AM29701
U115 AM29701
U92 74LS169
UP/DOWN COUNTER
U93 74LS169
U94 74S04
U95 74S32
U37 74S00
U116
U117
JDEST Ø-3
SHT 7
PRMOUT Ø-3
+5V
R15 1K
GenRad
SCHEMATIC DIAGRAM - CPU BOARD
INSTRUCTION COUNTER
D 2501-4700-2D
9


LOWER BYTE IMMEDIATE DATA
UPPER BYTE IMMEDIATE DATA
LOWER BYTE Ø
UPPER BYTE Ø
U96 74LS244
U76 74LS244
U97 74LS244
U77 74LS374
U74 74LS374
U78 74LS244
U75 74LS244
U56 74S08
U58 74S08
U57 74S74
U59 74S20
-INITL
+INITL
-MC
-INIT
+ROMDAT Ø-8, 27-31
+ROMDAT30L
ROMDAT30
C32 1μf
C33 1μf
C34 1μf
C1 .01μf
C30 100pf
R6 1K
+5V
N.C.
GenRad
SCHEMATIC DIAGRAM
CPU BOARD
SOURCE DESTINATION BUFFERING
D
2501-4700


U87
74S174
U107
74S174
U105
74S139
U106
74S139
U85
74S138
U104
74S138
U86
74S174
U42
74S10
U21
74S04
U24
74S04
BS0-8
BD0-8
-INIT
-MC
-2901SRC
+ROMDAT29
+D0L
+D1L
+D2L
-DC1101L
+D3L
+D4L
-SC1100
-SC1101
-SC1110
-DC1100
-DC1110
-DC11
-SC11
-S66B
+S0L
+S1L
+S2L
-S660
-S661
-S662
-S663
-S664
-S666
-S667
-SC1101L
+S3L
+S4L
-D660
-D661
-D662
-D663
-D664
-D665
-D666
-D667
-SC1100L
-2901SRCL
-DC10L
-DC1100L
+ROMDAT29L
+DC00L
+DC00
-SC00
-SC01
-SC10
-DC00
-DC01
-DC10
SOURCE
DESTINATION
DECODING
GenRad
SCHEMATIC DIAGRAM
CPU BOARD
D
2501-4700


NOTE 1: LOAD IC AT MC FOR UNCONDITIONAL RETURN WITH NO INTERRUPT AND AT T1 FOR JMP, JSR, CND RTN, OR INTERRUPT.
NOTE 2: COUNT STACK DOWN AT MC ON A JSR OR ON AN INTERRUPT WITH NO UNCONDITIONAL RETURN PENDING.
-DCØØ
-INTGANT
+MC
+MCTØ
+ROMDAT 0-8 28-31
+DCØØ
+T1
+DCØØL
-INTFF
+ROMDAT30L
-CNDTRUEL
+CNDTRUEL
+ROMDAT29L
-INIT
+TØ
-MC
+INTFF
+ROMDAT29
+UNCNDRTN
+ROMDAT30
-JSRP
+JSRPINT
(SUPPRESS COUNT OF IC AT MC FOR JMP TYPE WITH INTERRUPT)
(NOTE 2)
(NOTE 1)
+JSRBAD
+DCØØL
+JSRCNDR
(COUNT STACK UP AT T1 ON BAD JSR OR ON GOOD CONDITIONAL RTN)
(CLEAR HIGH BYTE OF IC FOR INTERRUPT)
-TØT1
-ROMDAT29L
-DCØØL
-JSRGOOD
-RDSTK
(ALWAYS READ THE STACK EXCEPT FOR JMP, JSR, OR INTERRUPT)
(ENABLE LOW BYTE FOR JMP OR JSR IF NO INTERRUPT)
(WRITE STACK AT T1 FOR A GOOD JSR OR FOR AN INTERRUPT WITH NO UNCONDITIONAL RETURN)
+UNCNDRTNA
+ICCNT
-SCNTDN
+ICCLK
-ICLOAD
-DCM2
-ENBSTKCNT
+CNDRTNGD
-ICCLRHI
-ENBIVEC
+TØT1
-JADENBHI
-JADENBLO
-CSSTK
-WESTK
GenRad
SCHEMATIC DIAGRAM -
CPU BOARD
FLOW OF INSTRUCTION CONTROL
D
2501-4700-2D



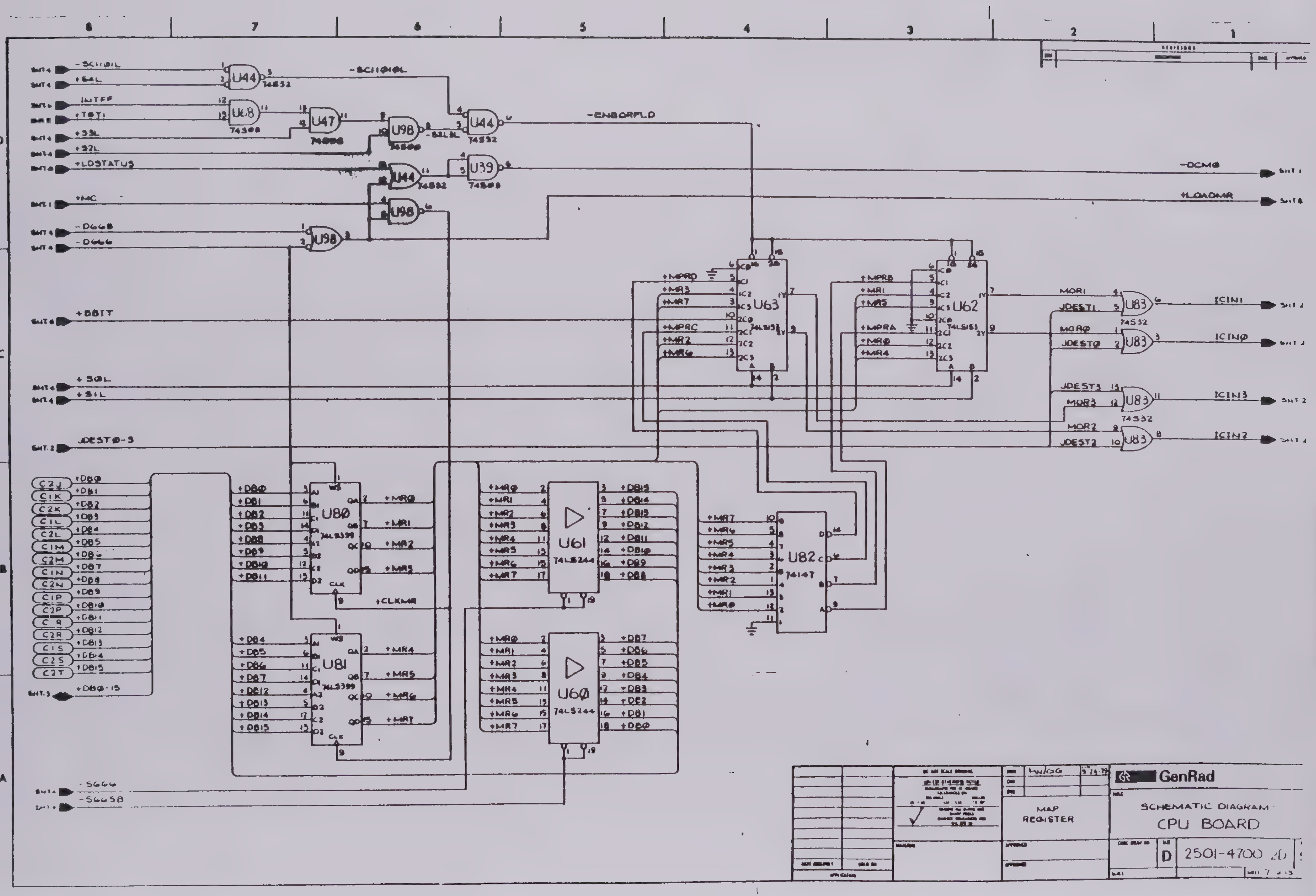
LOW PRIORITY LINE	OUTPUT 74148 A2	A1	A0
7	0	0	0
6	0	0	1
5	0	1	0
4	0	1	1
3	1	0	0
2	1	0	1
1	1	1	0
NONE (Ø)	1	1	1

GenRad

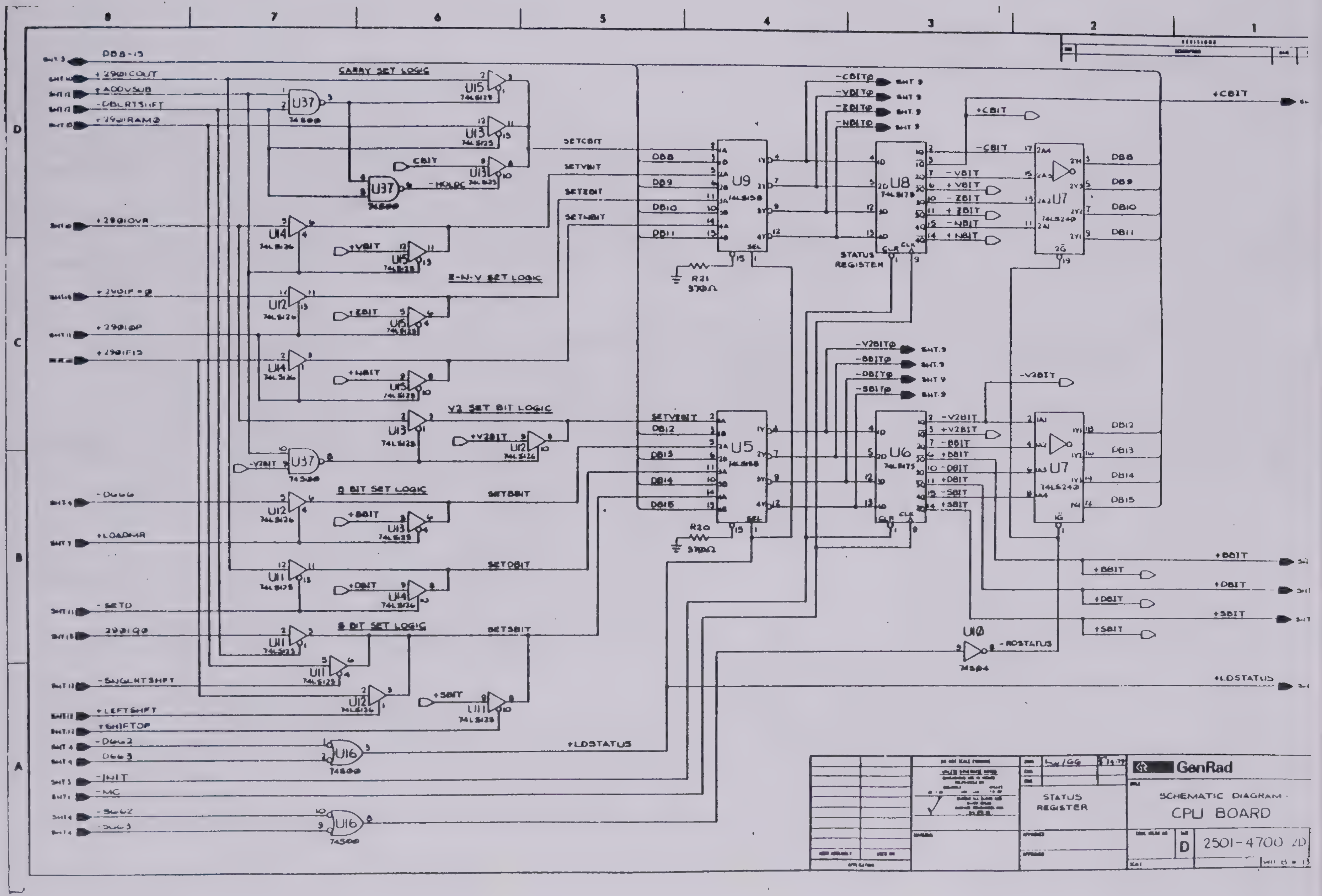
SCHEMATIC DIAGRAM - CPU BOARD

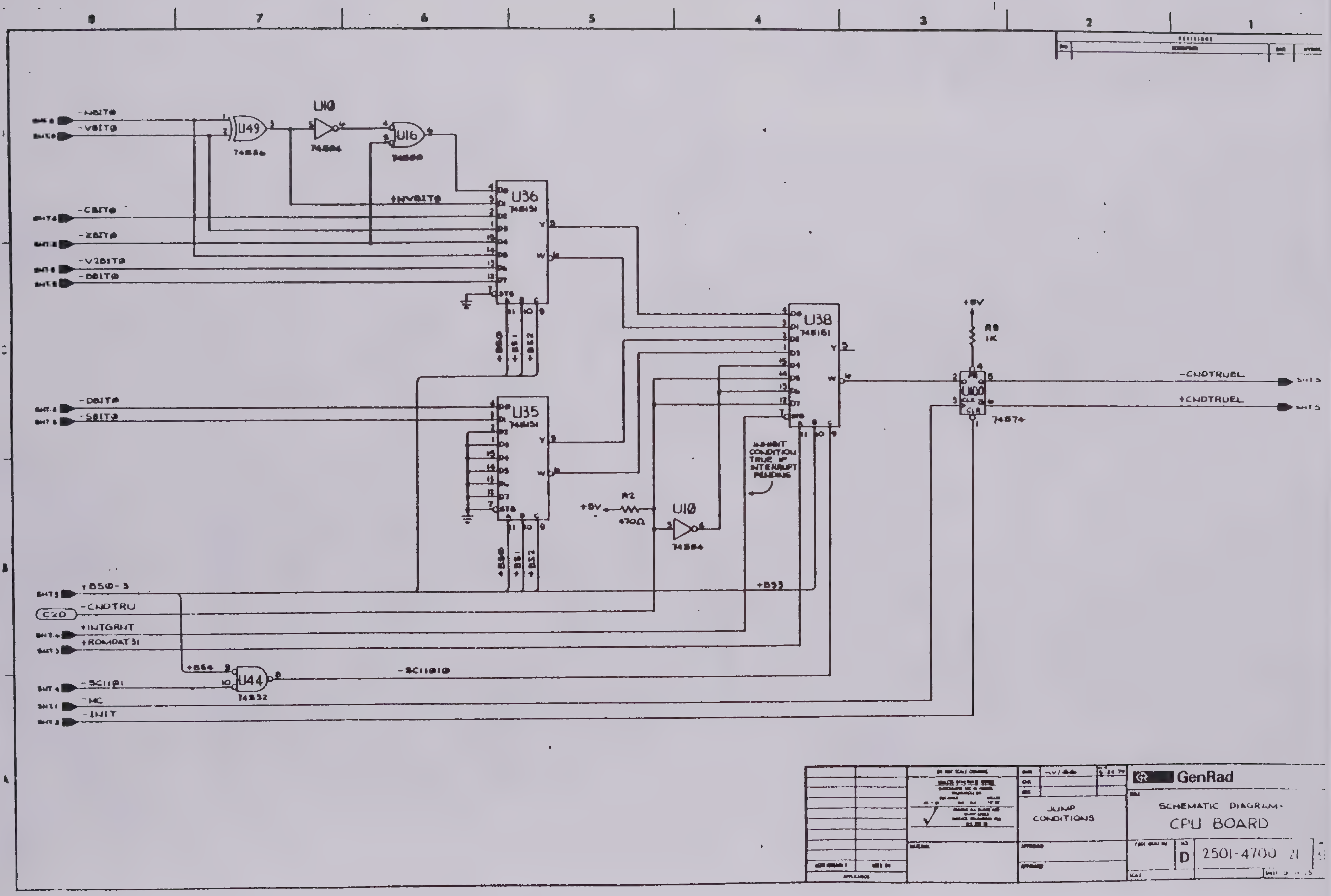
INTERRUPT ARBITRATION

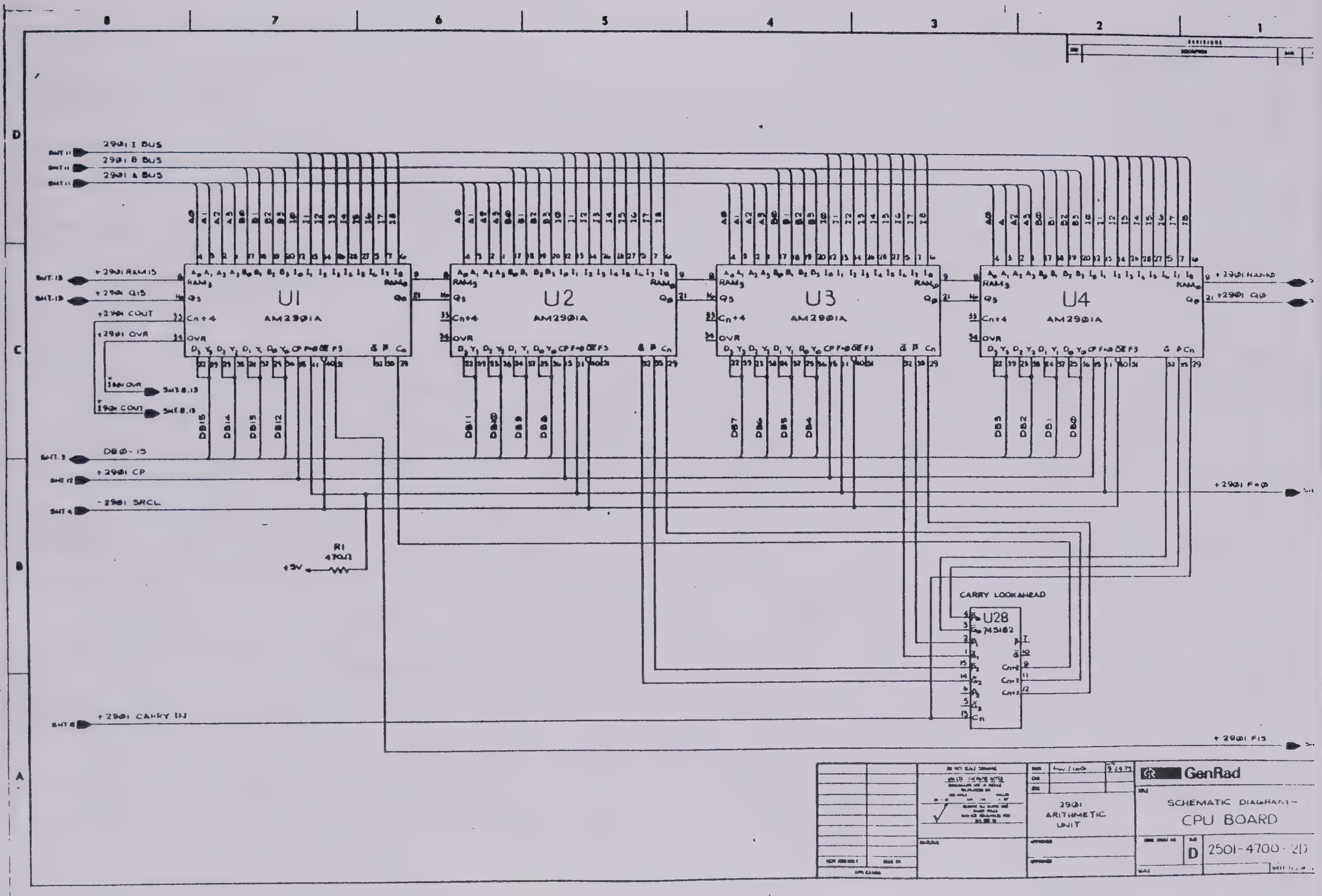
D 2501-4700-2D

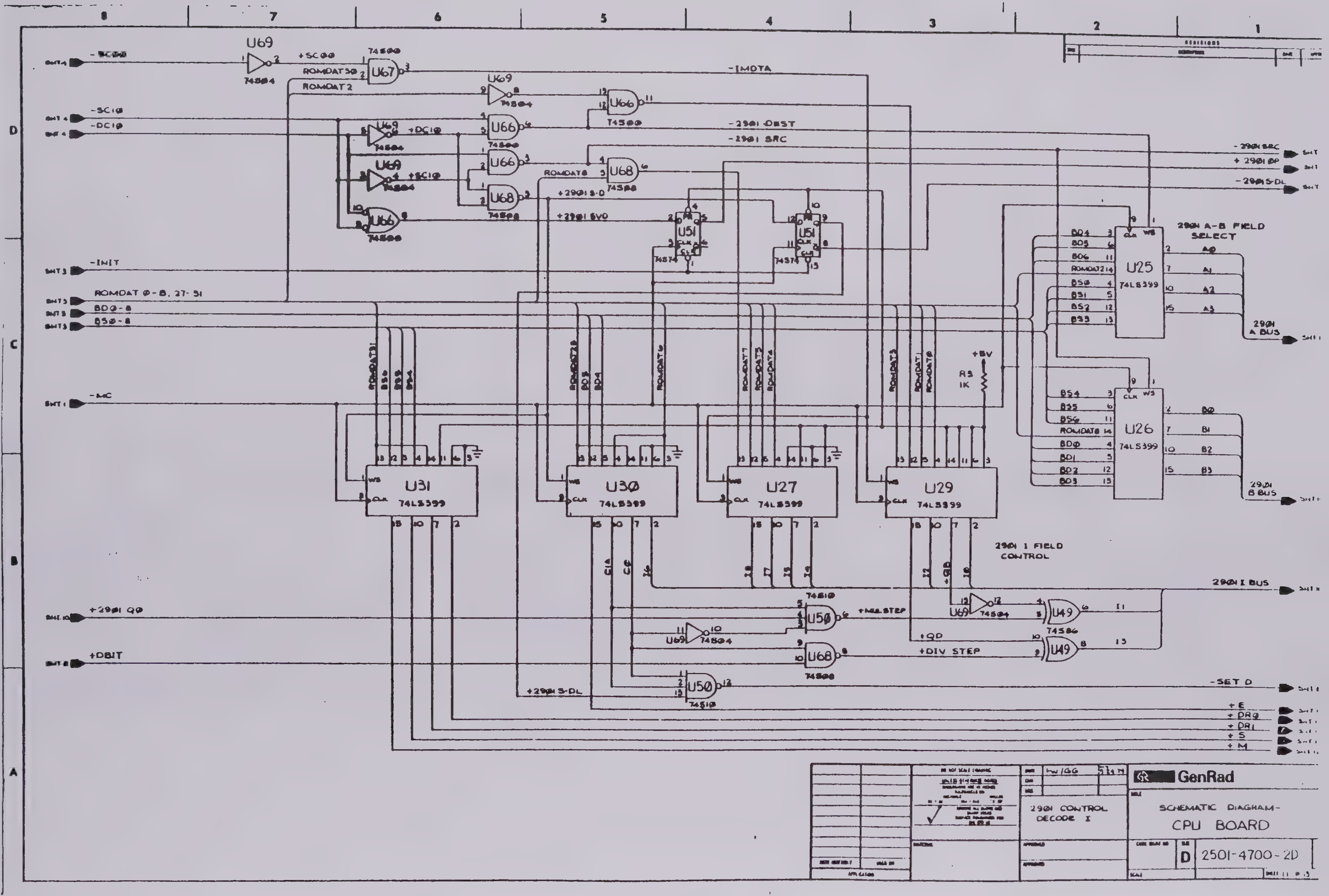


-ENBORFLD
-DCM0
+LOADMR
ICIN1
ICIN0
ICIN3
ICIN2
U44
U68
U47
U98
U39
U63
U62
U83
U80
U81
U61
U60
U82
74LS399
74LS244
74LS153
74147
74S32
+CLKMR
-SC1101L
+64L
INTFF
+TOTI
+32L
+LDSTATUS
+MC
-D66B
-D666
+8BIT
+S0L
+S1L
JDEST0-3
+DB0-15
-S666
-S66SB
MAP REGISTER
GenRad
SCHEMATIC DIAGRAM
CPU BOARD
D
2501-4700

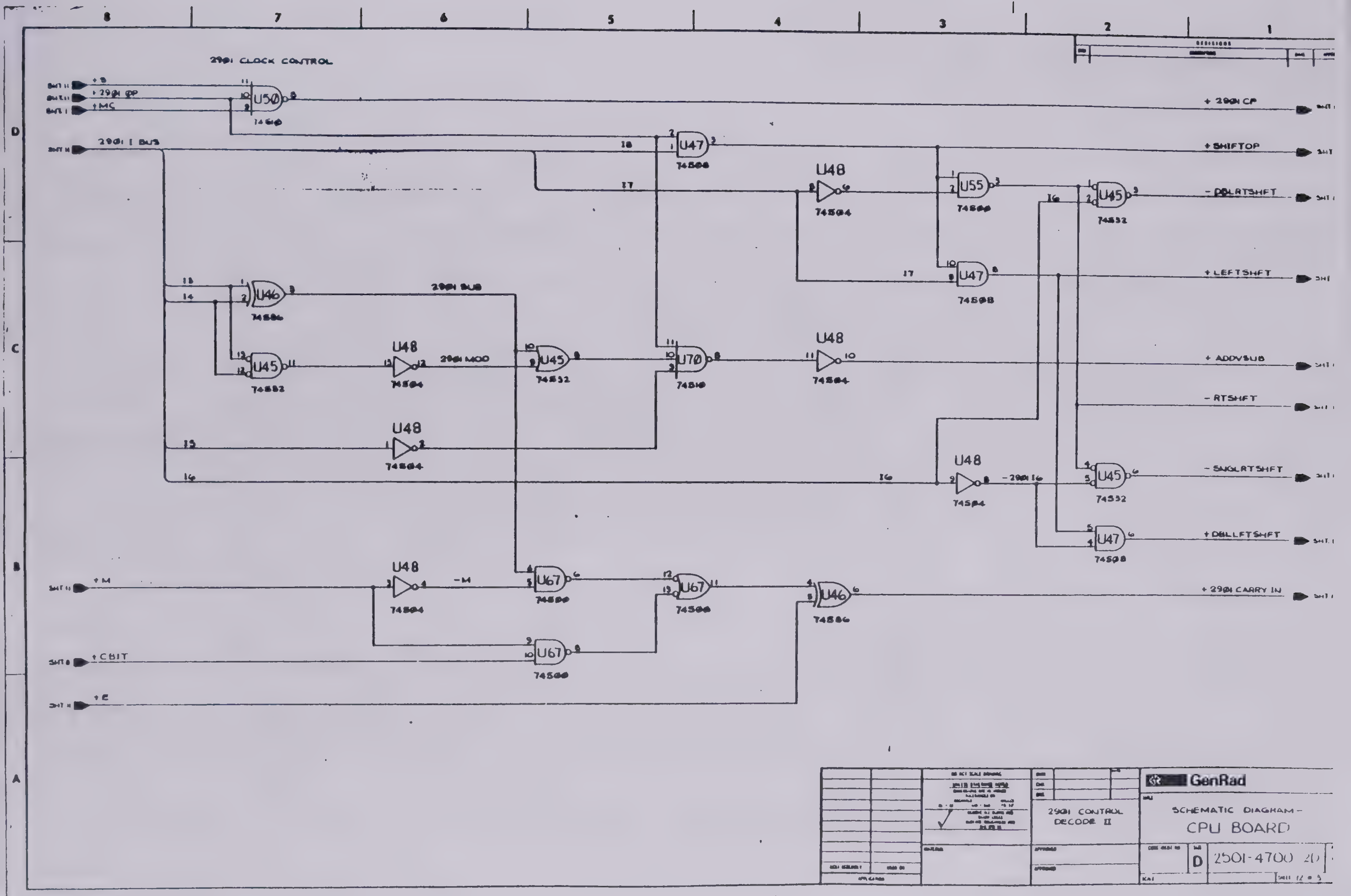

CARRY SET LOGIC
Z-N-V SET LOGIC
V2 SET BIT LOGIC
B BIT SET LOGIC
D BIT SET LOGIC
S BIT SET LOGIC
STATUS REGISTER
U5
U6
U7
U8
U9
U37
+CBIT
+BBIT
+DBIT
+SBIT
+LDSTATUS
-RDSTATUS
SETCBIT
SETVBIT
SETZBIT
SETNBIT
SETBBIT
SETDBIT
SETSBIT
DB8-15
R20 370Ω
R21 370Ω
GenRad
SCHEMATIC DIAGRAM
CPU BOARD
STATUS REGISTER
D
2501-4700 2D

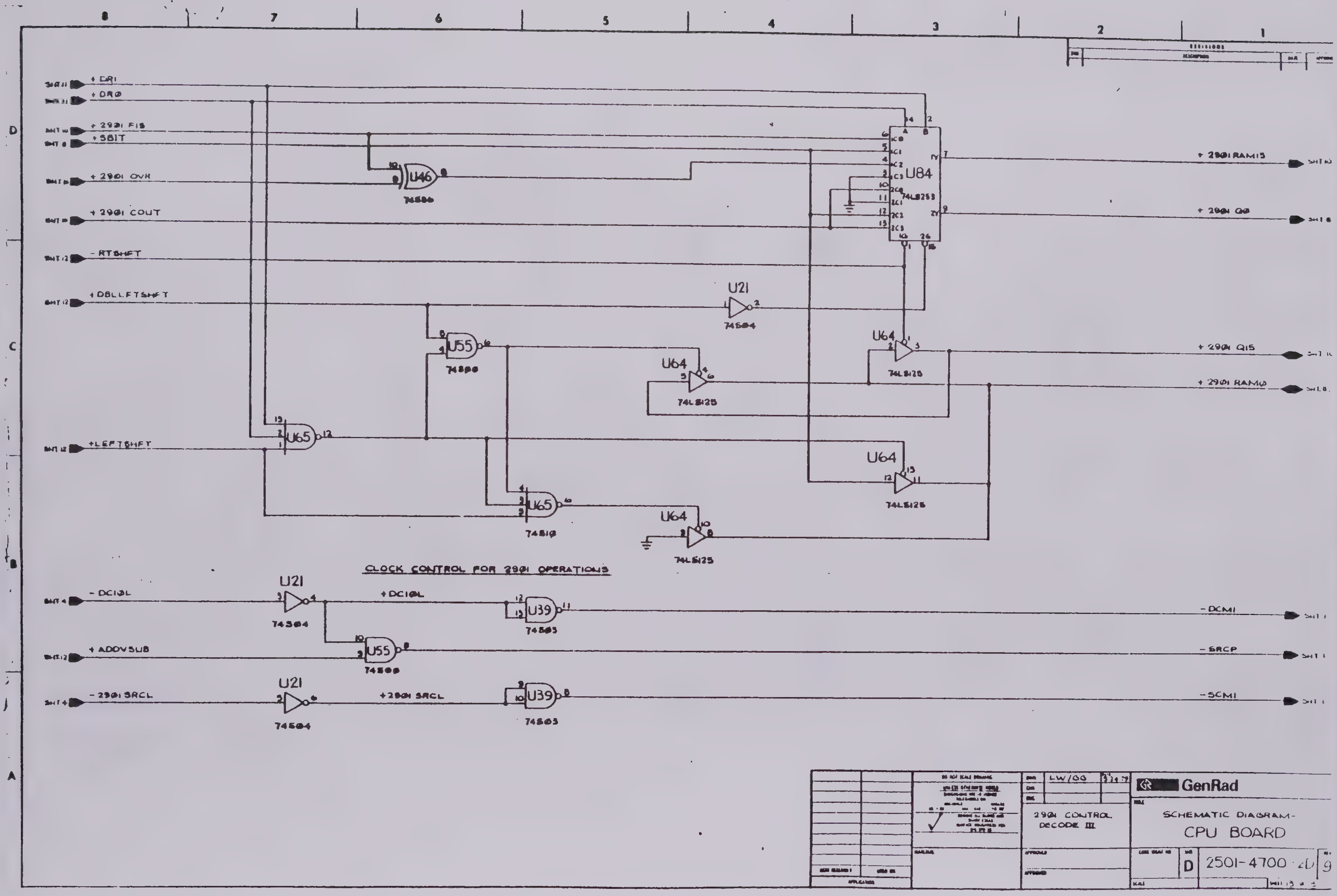

U49
74S86
U10
74S04
U16
74S00
U36
74S151
U35
74S151
U38
74S151
U44
74S32
R2
470Ω
R9
1K
+5V
74S74
-NBIT0
-VBIT0
+NVBIT0
-CBIT0
-ZBIT0
-V2BIT0
-DBIT0
-SBIT0
+BS0-3
-CNDTRU
+INTGRNT
+ROMDAT31
+BS4
+BS3
-SC1101
-SC11010
-MC
-INIT
-CNDTRUEL
+CNDTRUEL
C2D
INHIBIT CONDITION TRUE IF INTERRUPT PENDING
GenRad
SCHEMATIC DIAGRAM-
CPU BOARD
JUMP CONDITIONS
D
2501-4700


2901 I BUS
2901 B BUS
2901 A BUS
+2901 RAM15
+2901 Q15
+2901 COUT
+2901 OVR
U1
AM2901A
U2
AM2901A
U3
AM2901A
U4
AM2901A
+2901 RAM0
+2901 Q0
DB0-15
+2901 CP
-2901 SRCL
R1
470Ω
+5V
+2901 F=0
CARRY LOOKAHEAD
U28
74S182
+2901 CARRY IN
+2901 F15
GenRad
SCHEMATIC DIAGRAM-
CPU BOARD
2901
ARITHMETIC
UNIT
D
2501-4700-2D

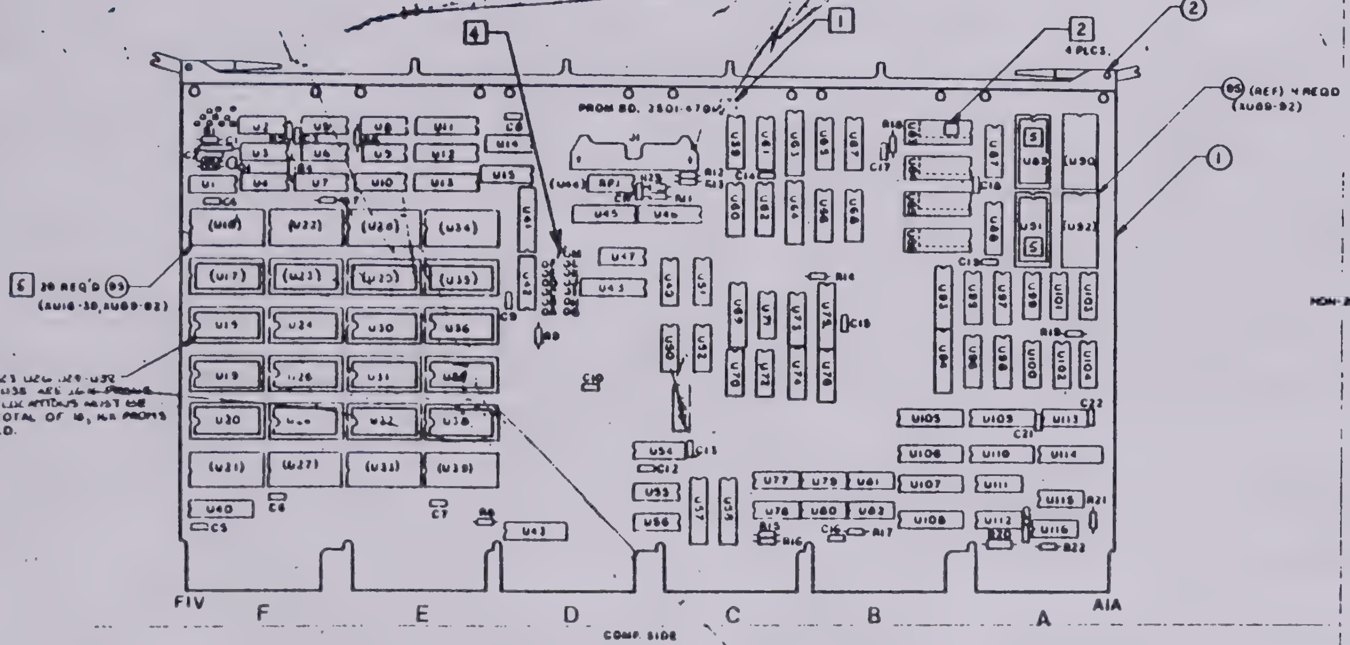


2901 A-B FIELD SELECT
2901 A BUS
2901 B BUS
2901 I FIELD CONTROL
2901 I BUS
-IMDTA
-2901 DEST
-2901 SRC
-2901 SRC
+2901 OP
-2901 S-DL
-INIT
ROMDAT 0-8, 27-31
BD0-8
BS0-8
-MC
+2901 QO
+DBIT
+DIV STEP
-SET D
+E
+DR0
+DR1
+S
+M
U25
U26
U27
U29
U30
U31
74LS399
GenRad
2901 CONTROL DECODE I
SCHEMATIC DIAGRAM-
CPU BOARD
D
2501-4700-2D


2901 CLOCK CONTROL
+ 2901 CP
+ SHIFTOP
- DBLRTSHFT
+ LEFTSHFT
+ ADDVSUB
- RTSHFT
- SNGLRTSHFT
+ DBLLFTSHFT
+ 2901 CARRY IN
+ M
- M
+ CBIT
+ E
2901 I BUS
2901 SUB
2901 MOD
- 2901 I6
U50
U47
U48
U55
U45
U46
U70
U67
GenRad
SCHEMATIC DIAGRAM -
CPU BOARD
2901 CONTROL
DECODE II
D
2501-4700


+DR1
+DRØ
+2901 F15
+SBIT
+2901 OVR
+2901 COUT
-RTSHFT
+DBLLFTSHFT
+LEFTSHFT
-DC10L
+ADDVSUB
-2901 SRCL
U84
74LS253
U46
74S86
U21
74S04
U55
74S00
U64
74LS125
U65
74S10
U39
74S03
+2901 RAM15
+2901 Q0
+2901 Q15
+2901 RAM0
CLOCK CONTROL FOR 2901 OPERATIONS
+DC10L
+2901 SRCL
-DCM1
-SRCP
-SCM1
LW/GG
2901 CONTROL
DECODE III
GenRad
SCHEMATIC DIAGRAM-
CPU BOARD
D
2501-4700
9

REV	DESCRIPTION
1	CREATE -01 ([illegible])
4	REV PER ECN 2433
4	TRACKING PER ECN 2464
5	REV PER ECN [illegible]
6	TRACKING PER ECN 2597
7	TRACKING PER ECN 2805



5 U17 U20 U23 U26 U29 U32 AND U35 U38 ARE 16 K PROMS. OTHER 8 LOCATIONS MUST BE EMPTY. TOTAL OF 18, 16K PROMS REQUIRED.

5

	REF DES	DESCRIPTION
NON-ZOOM	U17	B3-1
	U18	B2-1
	U19	B1-1
	U20	B0-1
	U23	B3-3
	U24	B2-3
	U25	B1-3
	U26	B0-3
	U29	B3-0
	U30	B2-0
	U31	B1-0
	U32	B0-0
	U35	B3-2
	U36	B2-2
	U37	B1-2
	U38	B0-2
ZOOM	U89	DATA 0
	U91	DATA 1

NOTES:

1. MARK APPLICABLE REV NO USING .12 MIN. HIGH CHARACTORS, COLOR BLACK, WHERE SHOWN.
2. LARGER OUTLINE APPLIES FOR STANDARD USAGE (93L422) SMALLER OUTLINE APPLIES FOR ALTERNATE (74S207).
3. AFTER WAVE SOLDERING CLIP ALL I.C. LEADS.
4. INSTALL JUMPERS AS SHOWN;

F O—O M
E O—O L
D O—O K
C O—O J
B O—O H
A O—O G

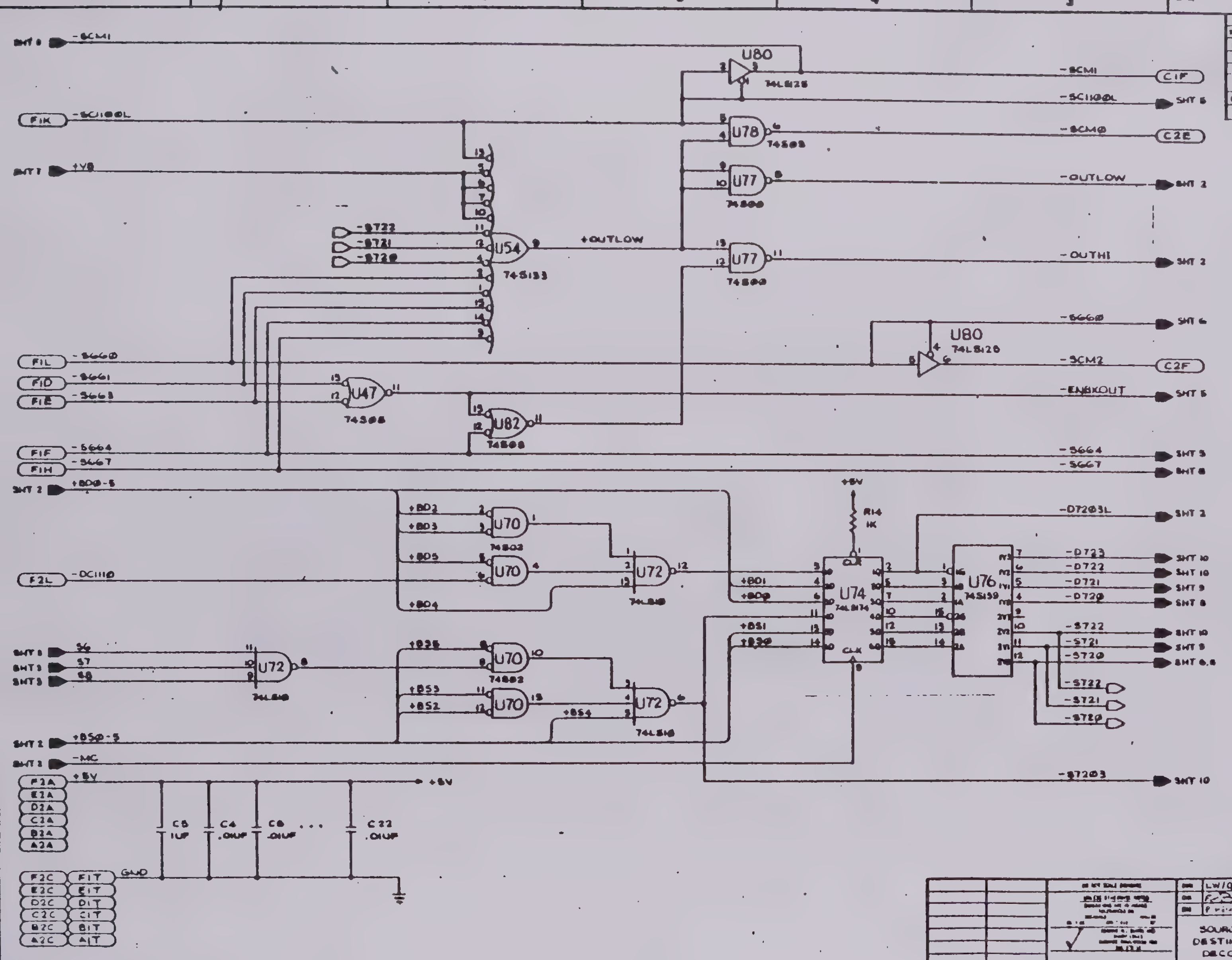
GenRad

PCB ASSEMBLY PROM BD.

D 2501-4701-01 (1) 7

2501-2000 2501

SEE 2501-4701-01-1L



1	CREATE OF CONDITION (ECN 2319)	
3	REV PER ECN 2422	
4	TRACKING PER ECN 2464	
5	REV PER ECN 2496	
6	TRACKING PER ECN 2557	
7	TRACKING PER ECN 2805	

I C TABLE

QTY	I C TYPE	REFERENCE DESIGNATIONS	VCC PIN	GND PIN
3	74S00	U3 77, 102	14	7
2	74S32	U51, 70	14	7
1	74S03	U78	14	7
3	74S04	U14, 49, 104	14	7
3	74S08	U47 56, 82	14	7
1	74S20	U71	14	7
1	74S30	U53	14	7
1	74S32	U79	14	7
1	74S51	U99	14	7
4	74S74	U55, 100, 103, 113	14	7
1	74S112	U97	16	8
1	74S133	U54	16	8
1	74S138	U42	16	8
1	74S139	U76	16	8
1	74S140	U81	14	7
2	74S157	U65, 66	16	8
1	74S163	U98	16	8
1	74S174	U74	16	8
2	74S240	U40 41	20	10
1	74LS10	U72	14	7
1	74LS14	U2	14	7
1	74LS20	U7	14	7
2	74LS27	U50 52	14	7
5	74LS74	U5 6, 9 101, 116	14	7
1	74LS86	U8	14	7
1	74LS123	U4	16	8
1	74LS125	U80	14	7
1	74LS151	U10	16	8
1	74LS157	U73	16	8
3	74LS174	U15, 87 88	16	8
7	74LS244	U43, 48, 63 64, 69, 109 110	20	10
2	74LS245	U57 58	20	10
6	74LS273	U11, 13, 75, 105, 106	20	10
2	74LS283	U67 68	16	8
2	74LS299	U93 94	20	10
4	74LS374	U12, 45 46, 114	20	10
4	74LS393	U1, 111, 112, 115	14	7
4	74LS669	U59 60, 61 62	16	8
4	93L422	U83 84, 85, 86	22	11
2	AM25LS14	U95, 96	16	8
2	AM25LS2524	U107 108	20	10
1	2501-6001	U89	24	12
1	2501-6002	U91	24	12
4	[illegible]	U12, 20, 28, 76 (80 01,2,3)	24	12
4	[illegible]	U1, 19, 31, 29 (81 01,2,3)	24	12
4	[illegible]	U30, 16, 36, 44 (67 01,2,3)	24	12
4	[illegible]	[illegible]	[illegible]	[illegible]

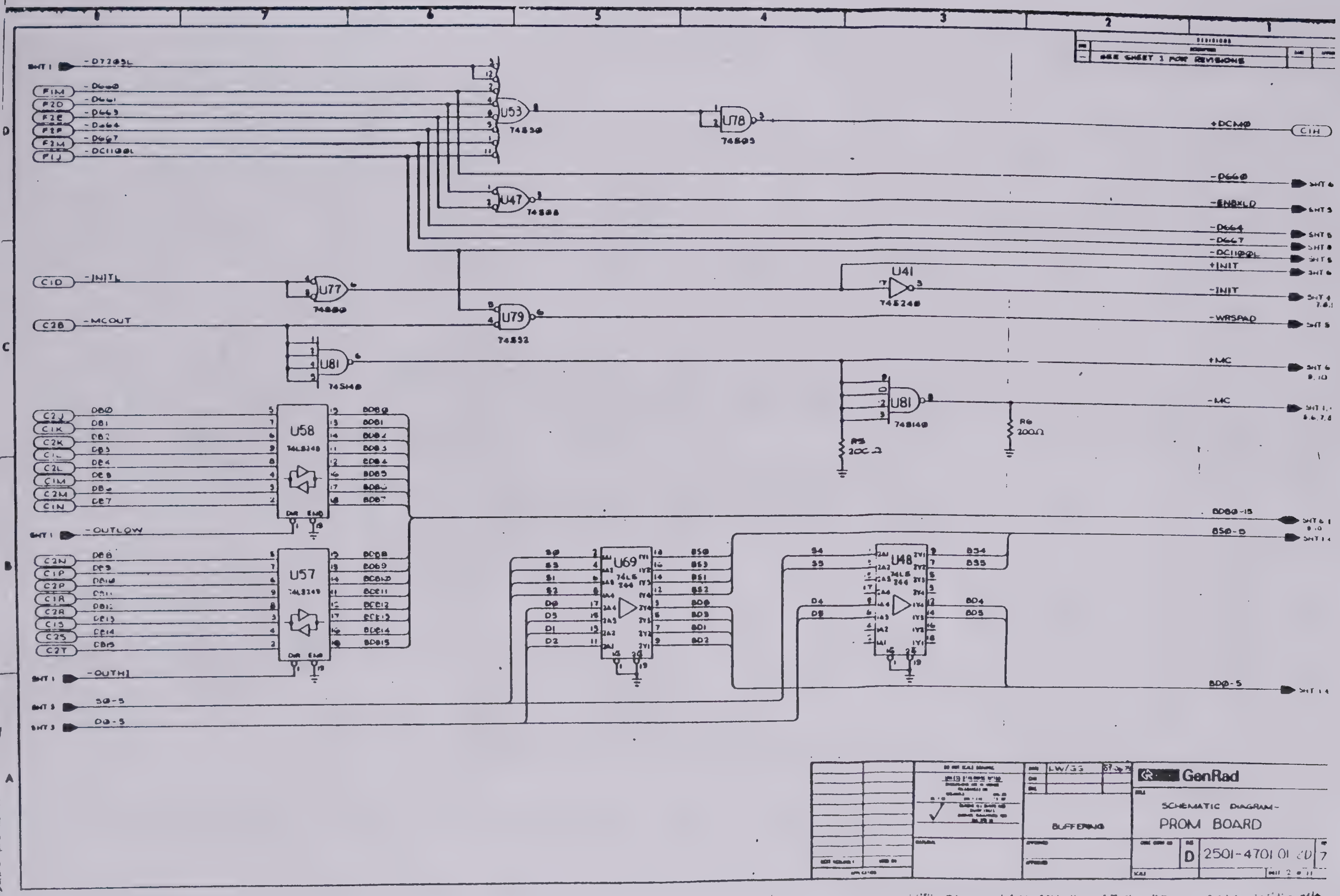
DRAWN LW/99

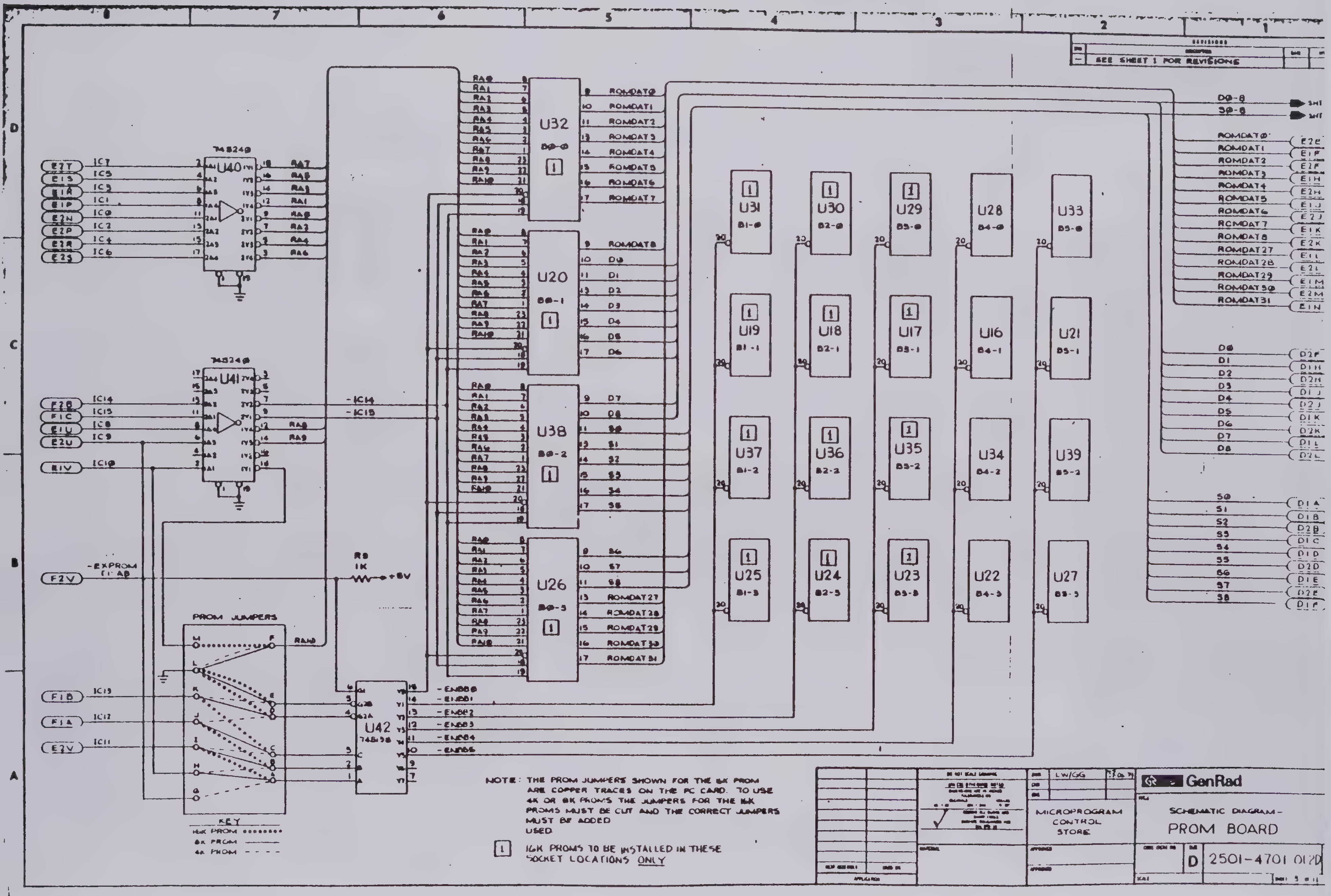
SOURCE AND DESTINATION DECODING

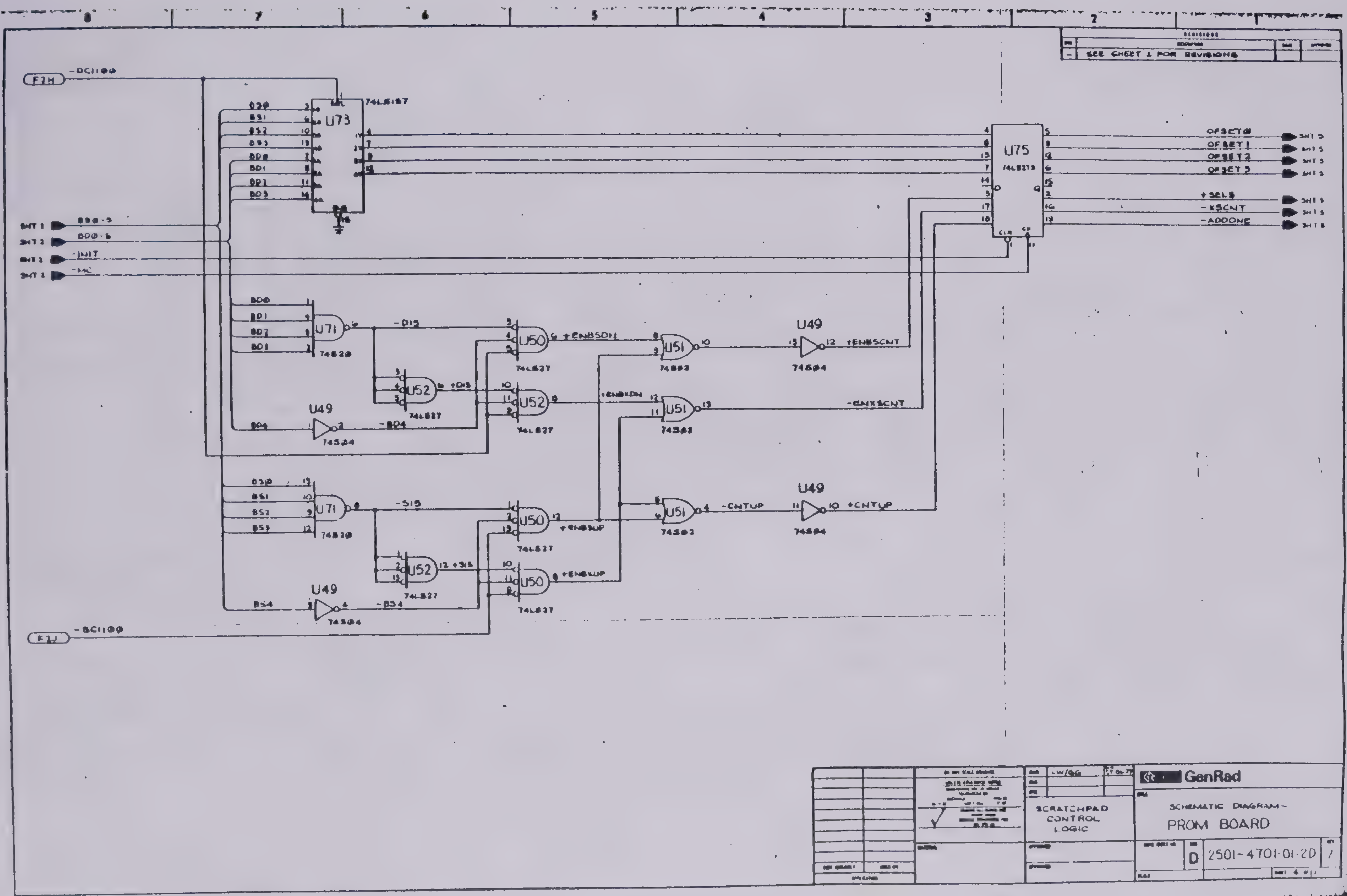
GenRad

SCHEMATIC DIAGRAM -
PROM BOARD

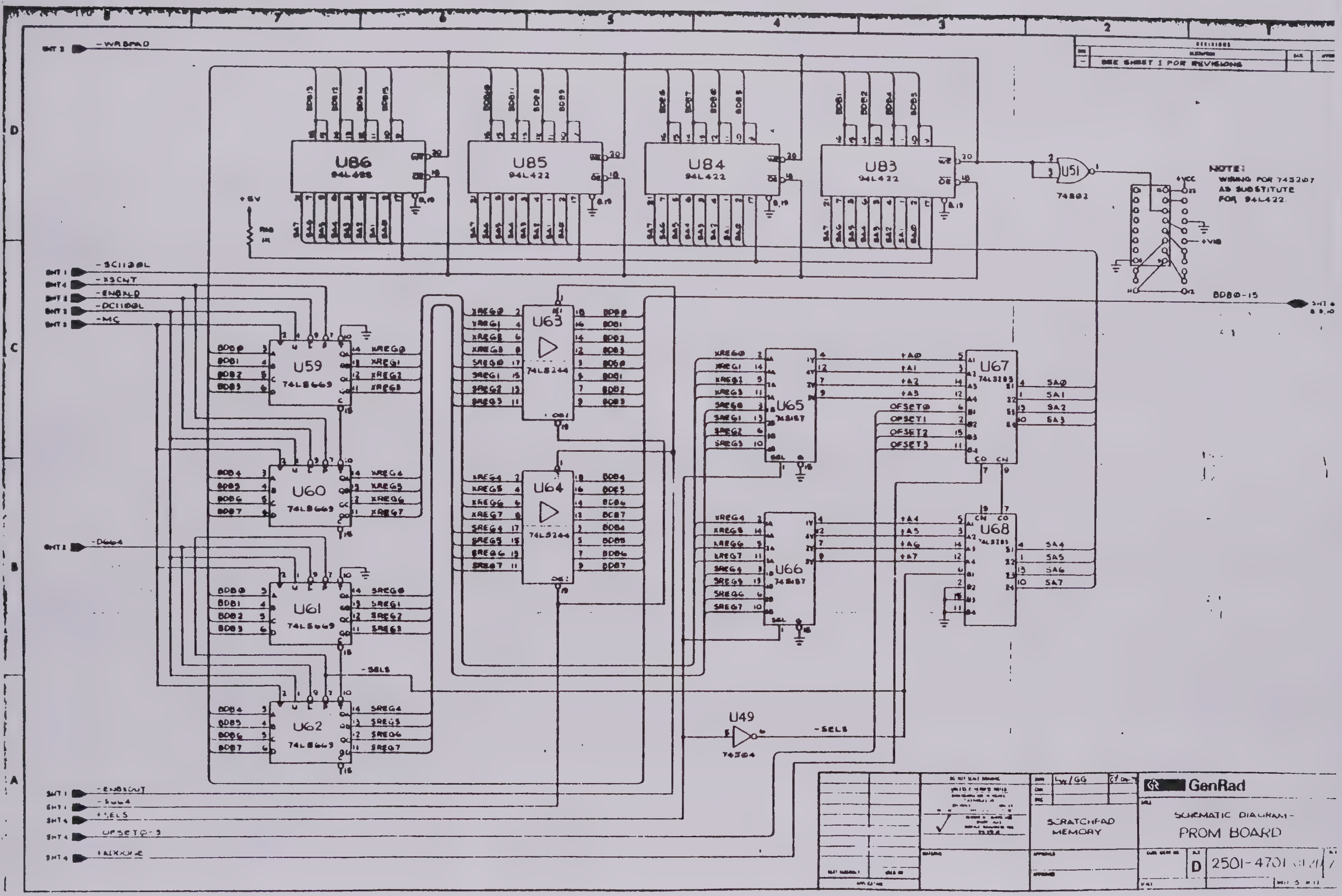
D 2501-4701-01-2D

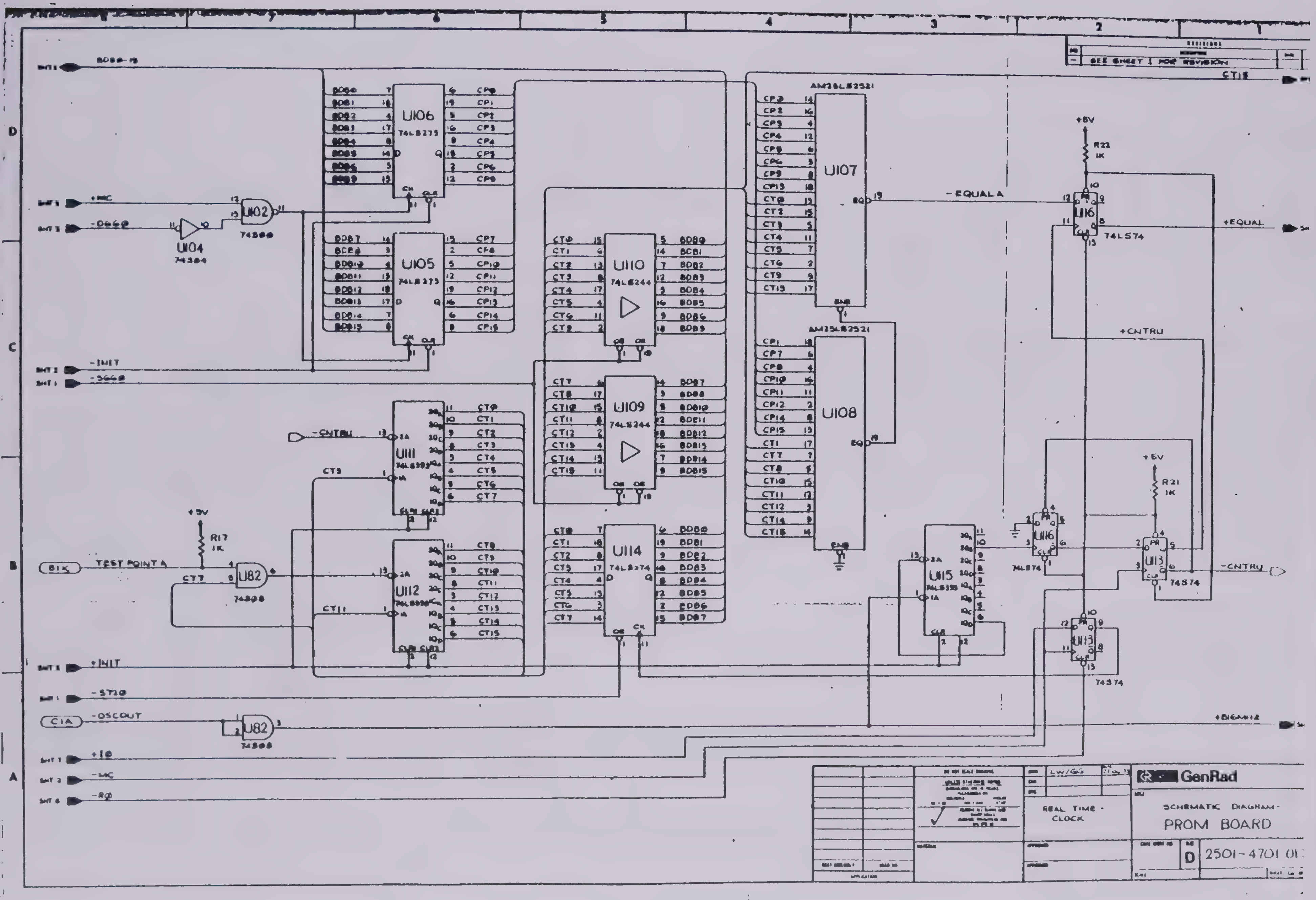

SEE SHEET 1 FOR REVISIONS
U53
74S30
U78
74S03
U47
74S08
U77
74S00
U79
74S32
U81
74S140
U41
74S240
U58
74LS240
U57
74LS240
U69
74LS244
U48
74LS244
R5 200Ω
R6 200Ω
+DCM0
-D660
-ENBXLD
-D664
-D667
-DC1100L
+INIT
-INIT
-WRSPAD
+MC
-MC
BD00-15
BS0-5
BD0-5
-D7205L
-INITL
-MCOUT
-OUTLOW
-OUTHI
S0-5
D0-5
GenRad
SCHEMATIC DIAGRAM-
PROM BOARD
BUFFERING
D
2501-4701 01
7

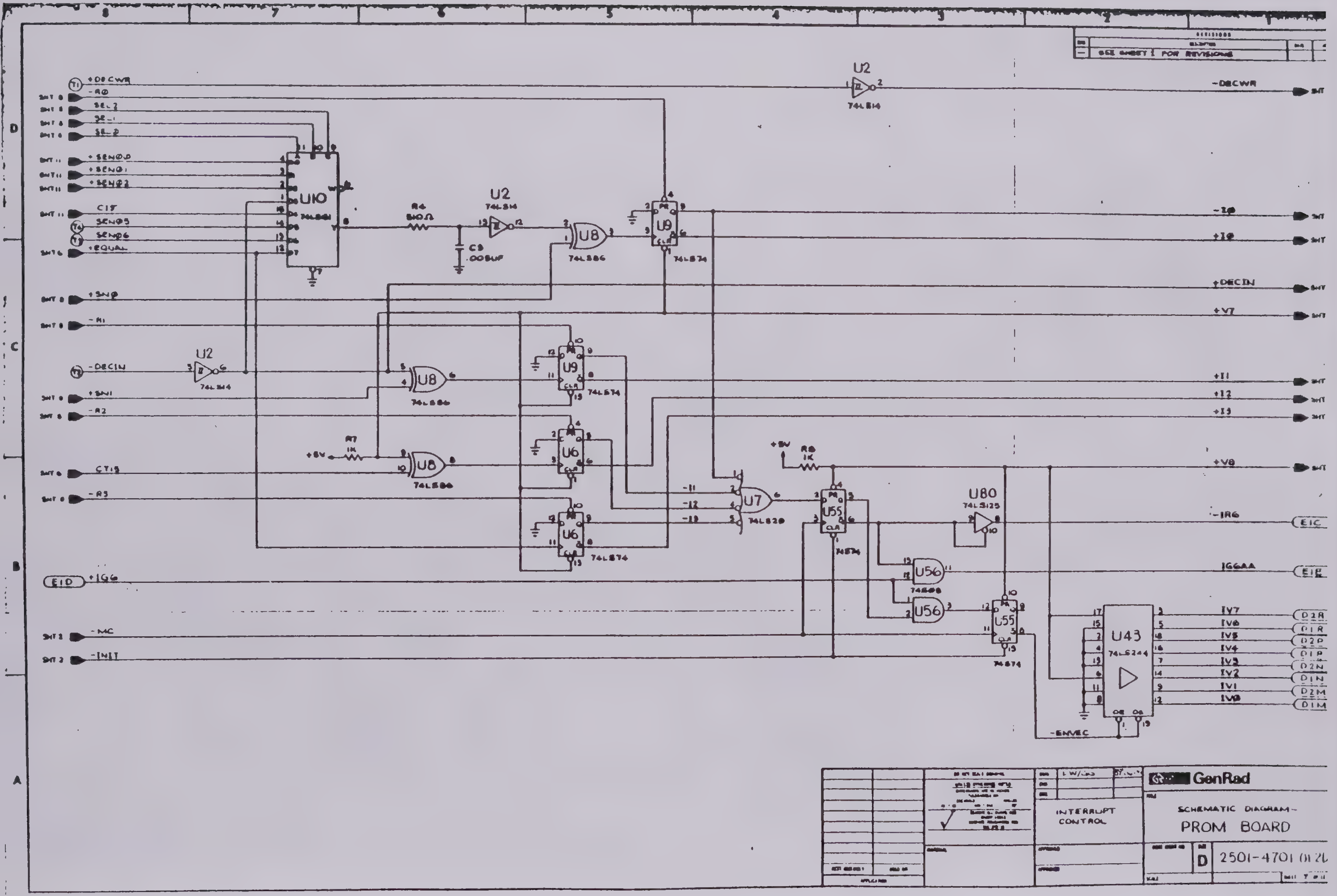

SEE SHEET 1 FOR REVISIONS
U40
74S240
U41
74S240
U32
B0-0
U20
B0-1
U38
B0-2
U26
B0-3
U31
B1-0
U30
B2-0
U29
B3-0
U28
B4-0
U33
B5-0
U19
B1-1
U18
B2-1
U17
B3-1
U16
B4-1
U21
B5-1
U37
B1-2
U36
B2-2
U35
B3-2
U34
B4-2
U39
B5-2
U25
B1-3
U24
B2-3
U23
B3-3
U22
B4-3
U27
B5-3
U42
74S138
PROM JUMPERS
R8
1K
+5V
-EXPROM
EN AB
D0-8
S0-8
KEY
16K PROM
8K PROM
4K PROM
NOTE: THE PROM JUMPERS SHOWN FOR THE 16K PROM ARE COPPER TRACES ON THE PC CARD. TO USE 4K OR 8K PROMS THE JUMPERS FOR THE 16K PROMS MUST BE CUT AND THE CORRECT JUMPERS MUST BE ADDED USED
1 16K PROMS TO BE INSTALLED IN THESE SOCKET LOCATIONS ONLY
LW/GG
GenRad
MICROPROGRAM
CONTROL
STORE
SCHEMATIC DIAGRAM -
PROM BOARD
D
2501-4701 01 2D

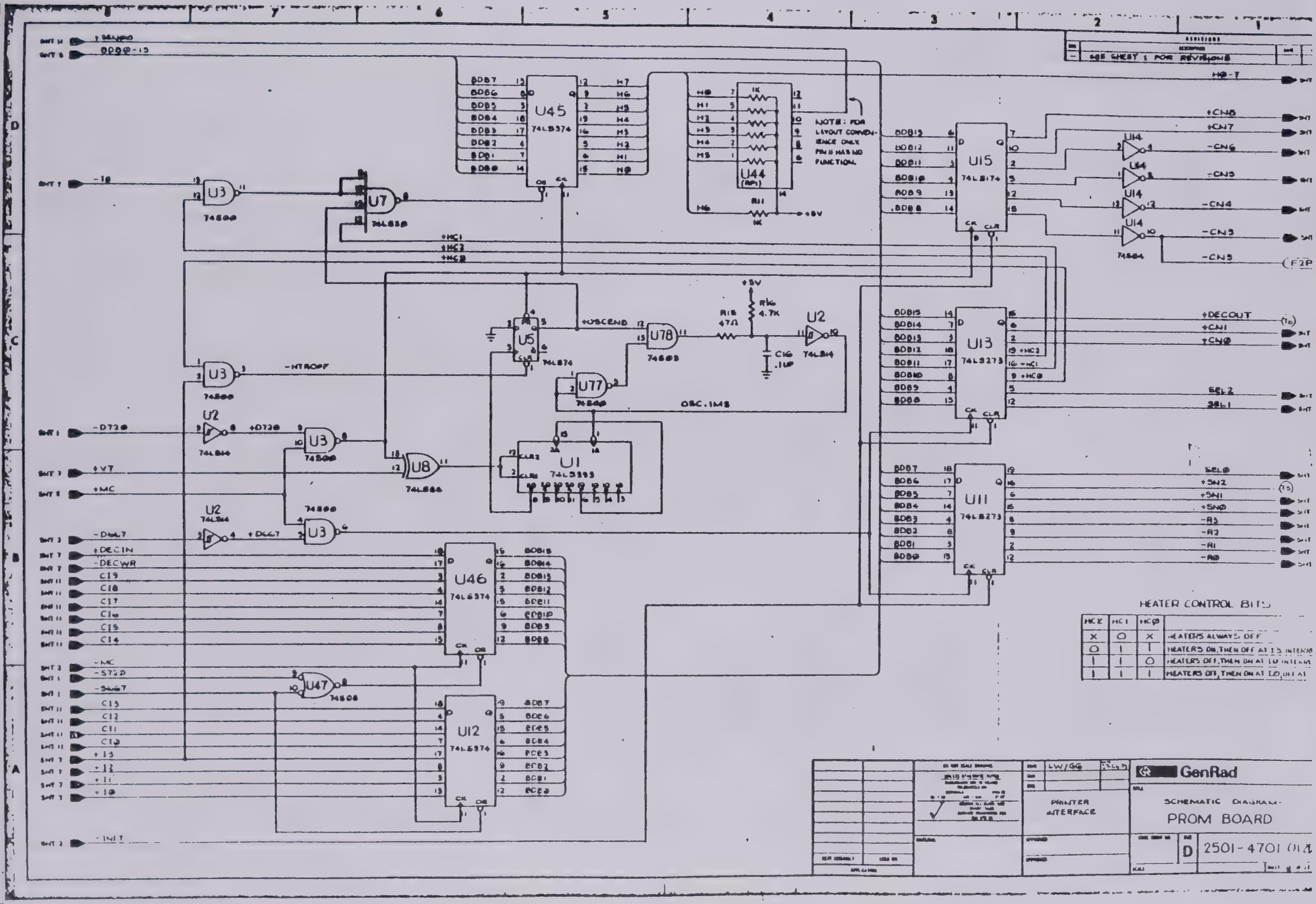


SEE SHEET 1 FOR REVISIONS
-DC1100
-SC1100
BD0-3
BD0-6
-INIT
U73
74LS157
U75
74LS273
OFSET0
OFSET1
OFSET2
OFSET3
+SEL8
-KSCNT
-ADDONE
U71
74S20
U52
74LS27
U50
U51
74S02
U49
74S04
-D15
-S15
+D15
+S15
-BD4
-BS4
+ENBSDN
+ENBSCNT
-ENKSCNT
+ENBSUP
-CNTUP
+CNTUP
GenRad
SCHEMATIC DIAGRAM -
PROM BOARD
SCRATCHPAD CONTROL LOGIC
LW/GG
D
2501-4701-01-2D


GenRad
SCHEMATIC DIAGRAM - PROM BOARD
SCRATCHPAD MEMORY
D 2501-4701
NOTE: WIRING FOR 74S207 AS SUBSTITUTE FOR 94L422.
SEE SHEET 1 FOR REVISIONS
U86
U85
U84
U83
U51
U59
U60
U61
U62
U63
U64
U65
U66
U67
U68
U49
-WRSPAD
-SC1120L
-XSCNT
-ENBHLD
-DC1100L
-MC
-D664
BDB0-15
-SELS

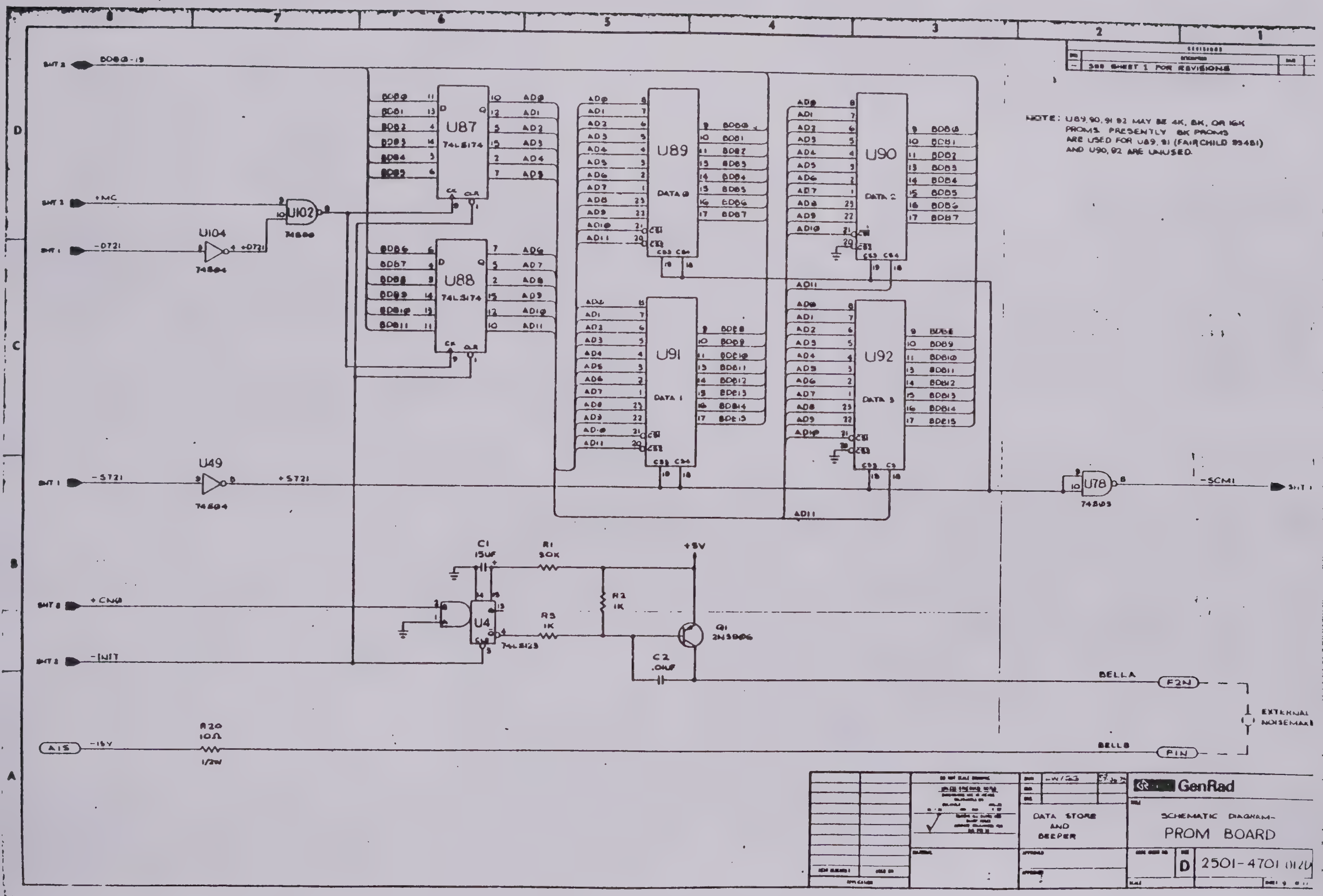

SEE SHEET 1 FOR REVISION
U106 74LS273
U105 74LS273
U110 74LS244
U109 74LS244
U114 74LS374
U111
U112
U107 AM25LS2521
U108 AM25LS2521
U116 74LS74
U113 74S74
U115
U102 74S00
U104 74S04
U82 74S00
R22 1K
R21 1K
R17 1K
+5V
BD00-15
+WC
-D660
-INIT
-S660
-CNTRU
+CNTRU
-EQUAL A
+EQUAL
CT15
TEST POINT A
B1K
+INIT
-ST10
C1A
-OSCOUT
+BIGMHZ
+10
-WC
-R0
LW/GG
REAL TIME - CLOCK
GenRad
SCHEMATIC DIAGRAM -
PROM BOARD
D
2501-4701 01

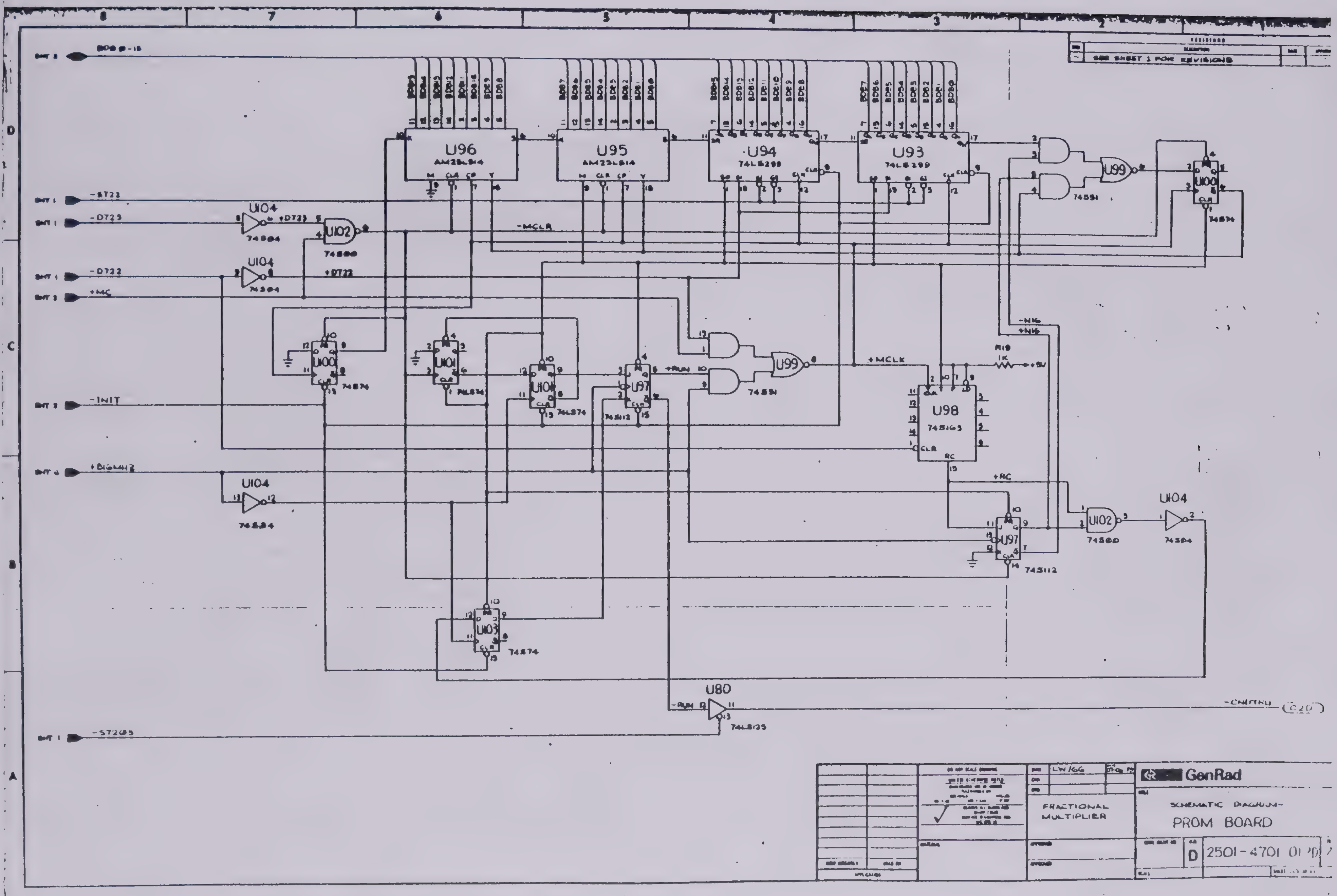

SEE SHEET 1 FOR REVISIONS
+DECWR
-R0
SEL 2
SEL 1
SEL 0
+SEN00
+SEN01
+SEN02
CI5
SEN05
SEN06
+EQUAL
+SN0
-R1
-DECIN
+SN1
-R2
CT15
-R3
+IG6
-MC
-INIT
U10
R4
510Ω
U2
74LS14
C3
.005UF
U8
74LS86
U9
74LS74
U6
74LS74
R7
1K
+5V
U7
74LS20
-I1
-I2
-I3
R8
1K
U55
74S74
U80
74LS125
U56
74S00
U43
74LS244
-ENVEC
-DECWR
-I0
+I0
+DECIN
+V7
+I1
+I2
+I3
+V0
-IRG
IGGAA
IV7
IV6
IV5
IV4
IV3
IV2
IV1
IV0
EID
EIC
EIE
D2R
D1R
D2P
D1P
D2N
D1N
D2M
D1M
INTERRUPT CONTROL
GenRad
SCHEMATIC DIAGRAM -
PROM BOARD
D
2501-4701



HEATER CONTROL BITS

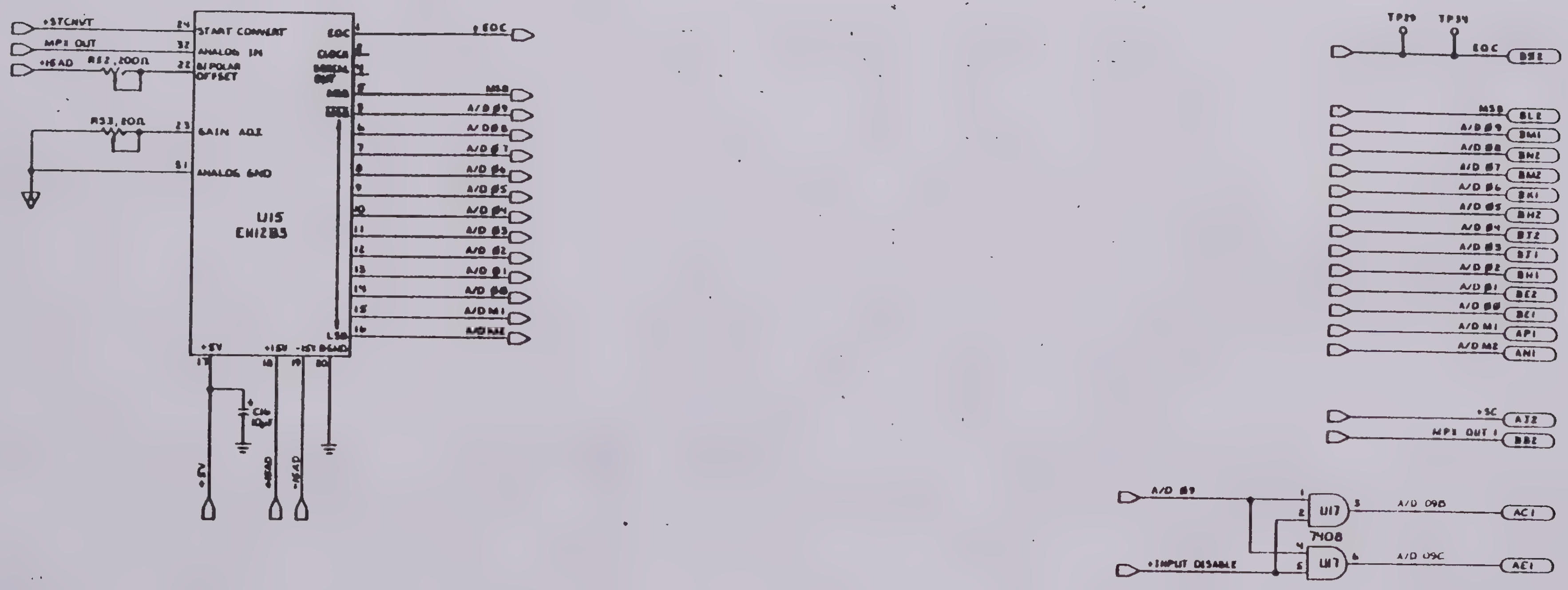
HC2	HC1	HC0	
X	O	X	HEATERS ALWAYS OFF
O	I	I	HEATERS ON, THEN OFF AT 1.5 INTERVAL
I	I	O	HEATERS OFF, THEN ON AT 1.0 INTERVAL
I	I	I	HEATERS OFF, THEN ON AT 2.0 INTERVAL


SEE SHEET 1 FOR REVISIONS
NOTE: U89, 90, 91, 92 MAY BE 4K, 8K, OR 16K PROMS. PRESENTLY 8K PROMS ARE USED FOR U89, 91 (FAIRCHILD 93481) AND U90, 92 ARE UNUSED.
U87 74LS174
U88 74LS174
U89 DATA Ø
U90 DATA 2
U91 DATA 1
U92 DATA 3
U102 74S00
U104 74S04
U49 74S04
U78 74S03
U4 74LS123
C1 15UF
R1 30K
R2 1K
R3 1K
C2 .01UF
Q1 2N3906
+5V
R20 10Ω 1/2W
BDØØ-19
+MC
-D721
+D721
-S721
+S721
-SCMI
+CNØ
-INIT
-15V
BELLA
BELLB
F2N
F1N
A15
EXTERNAL NOISEMAKER
GenRad
DATA STORE AND BEEPER
SCHEMATIC DIAGRAM-
PROM BOARD
D
2501-4701



SEE SHEET 1 FOR REVISIONS
BD0 0-15
-ST22
-D723
-D722
+MC
-INIT
+BIGMHZ
-ST205
U96
AM25LS14
U95
AM25LS14
U94
74LS299
U93
74LS299
U99
74S51
U100
74S74
U101
74LS74
U102
74S00
U103
74S74
U104
74S04
U97
74S112
U98
74S163
U80
74LS125
-MCLR
+D723
+D722
+MCLK
+RUN
-RUN
-N16
+N16
+RC
R19
1K
+5V
-CNITNU
GenRad
SCHEMATIC DIAGRAM
PROM BOARD
FRACTIONAL MULTIPLIER
LW/66
D
2501-4701

SEE SHEET 1



REF DES	
LAST USED	NOT USED
U17 C81 CR10 Q2 R56 TP34	TP20

I.C. TABLE

QTY	I.C. TYPE	REFERENCE DESIGNATION	+5V	+15V	-15V	GND
8	2425-5	U1 - U8	—	9	5	—
2	SD5000	U10, U11	—	—	—	—
2	SD5200	U9, U12	—	—	—	—
1	LH0002	U14	—	—	—	—
1	HA2517	U13	—	—	—	—
1	EH12B3	U15	17	18	19	20
1	7408	U17	14	—	—	7

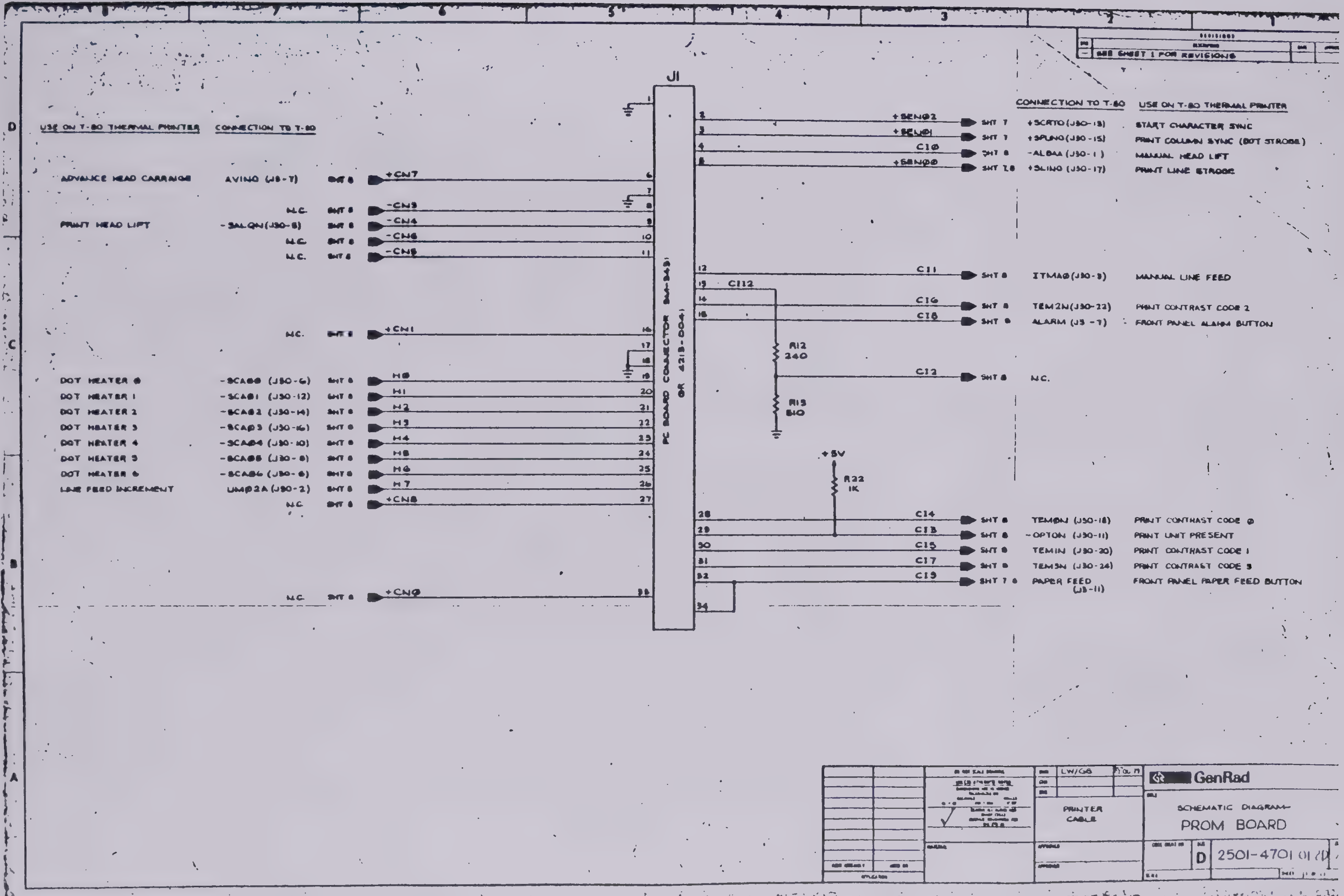
C ZIEGLER

GenRad

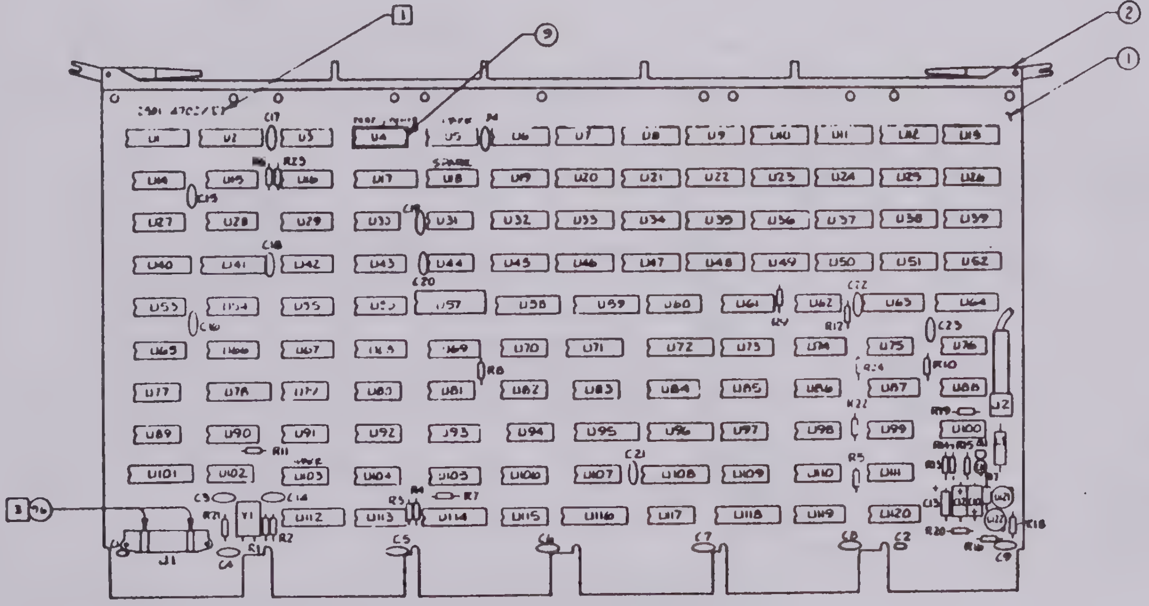
SCHEMATIC
SAMPLE - HOLD, A/D

D 2501-4711-00

SCALE NONE


SEE SHEET 1 FOR REVISIONS
J1
PC BOARD CONNECTOR
USE ON T-80 THERMAL PRINTER
CONNECTION TO T-80
ADVANCE HEAD CARRIAGE
AVINO (J3-7)
+CN7
PRINT HEAD LIFT
-SALON (J30-8)
-CN3
-CN4
-CN6
-CN5
+CN1
N.C.
DOT HEATER 0
DOT HEATER 1
DOT HEATER 2
DOT HEATER 3
DOT HEATER 4
DOT HEATER 5
DOT HEATER 6
LINE FEED INCREMENT
UMØ2A (J30-2)
+CN8
+CN9
H0
H1
H2
H3
H4
H5
H6
H7
+SENØ2
+SELØ1
C10
+SENØØ
C11
C112
C16
C18
C12
R12
240
R13
510
+5V
R22
1K
C14
C13
C15
C17
C19
+SCRTO (J30-13)
+SPLNO (J30-15)
-ALDAA (J30-1)
+SLINO (J30-17)
ITMAØ (J30-3)
TEM2N (J30-22)
ALARM (J3-7)
TEMØN (J30-18)
-OPTON (J30-11)
TEM1N (J30-20)
TEM3N (J30-24)
PAPER FEED (J3-11)
START CHARACTER SYNC
PRINT COLUMN SYNC (DOT STROBE)
MANUAL HEAD LIFT
PRINT LINE STROBE
MANUAL LINE FEED
PRINT CONTRAST CODE 2
FRONT PANEL ALARM BUTTON
PRINT CONTRAST CODE 0
PRINT UNIT PRESENT
PRINT CONTRAST CODE 1
PRINT CONTRAST CODE 3
FRONT PANEL PAPER FEED BUTTON
PRINTER CABLE
GenRad
SCHEMATIC DIAGRAM
PROM BOARD
D
2501-4701

LTR	DESCRIPTION
2	PER ECN 2...
3	PER ECN 2155 ... 2115
4	PER ECN 2199
5	PER ECN 2207
6	PER ECN 2243
6A	CORRECTED Q1 ORIENTATION
7	REV PER ECN 24..
8	REV PER ECN 2495
9	TRACKING PER ECN 2505
10	TRACKING PER ECN 2575



NOTES:

1. MARK APPLICABLE REV. NO. USING .12 MIN HIGH CHARACTERS, COLOR BLACK, WHERE SHOWN.
2. AFTER WAVE SOLDERING CLIP ALL I.C. LEADS.
3. INSERT KEYS, ITEM 96 IN CONNECTOR.

GenRad

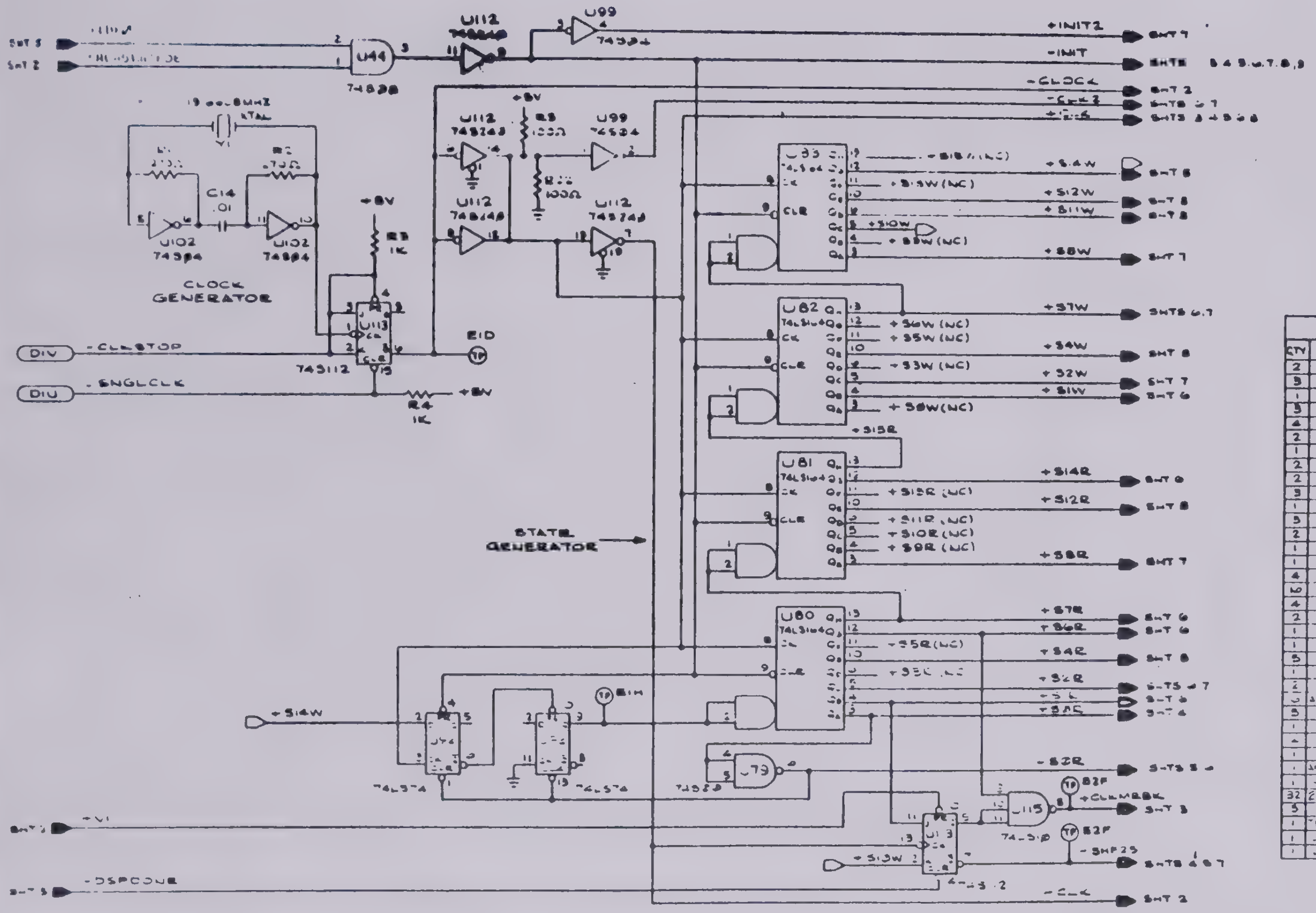
P.W. BOARD ASSEMBLY
DISPLAY

D 2501-4702-10 10

2501-2000 2501

REF P/L 2501-4702-10

LTR	REVISIONS DESCRIPTION		
2	[illegible]		
3	PER ECN 2156		
4	PER ECN 2199		
6	PER ECN 2346		
7	[illegible] PER ECN 2428		
8	[illegible] PER ECN 2193		
9	TRACKING PER ECN 2805		
10	REVISED PER ECN 2875		



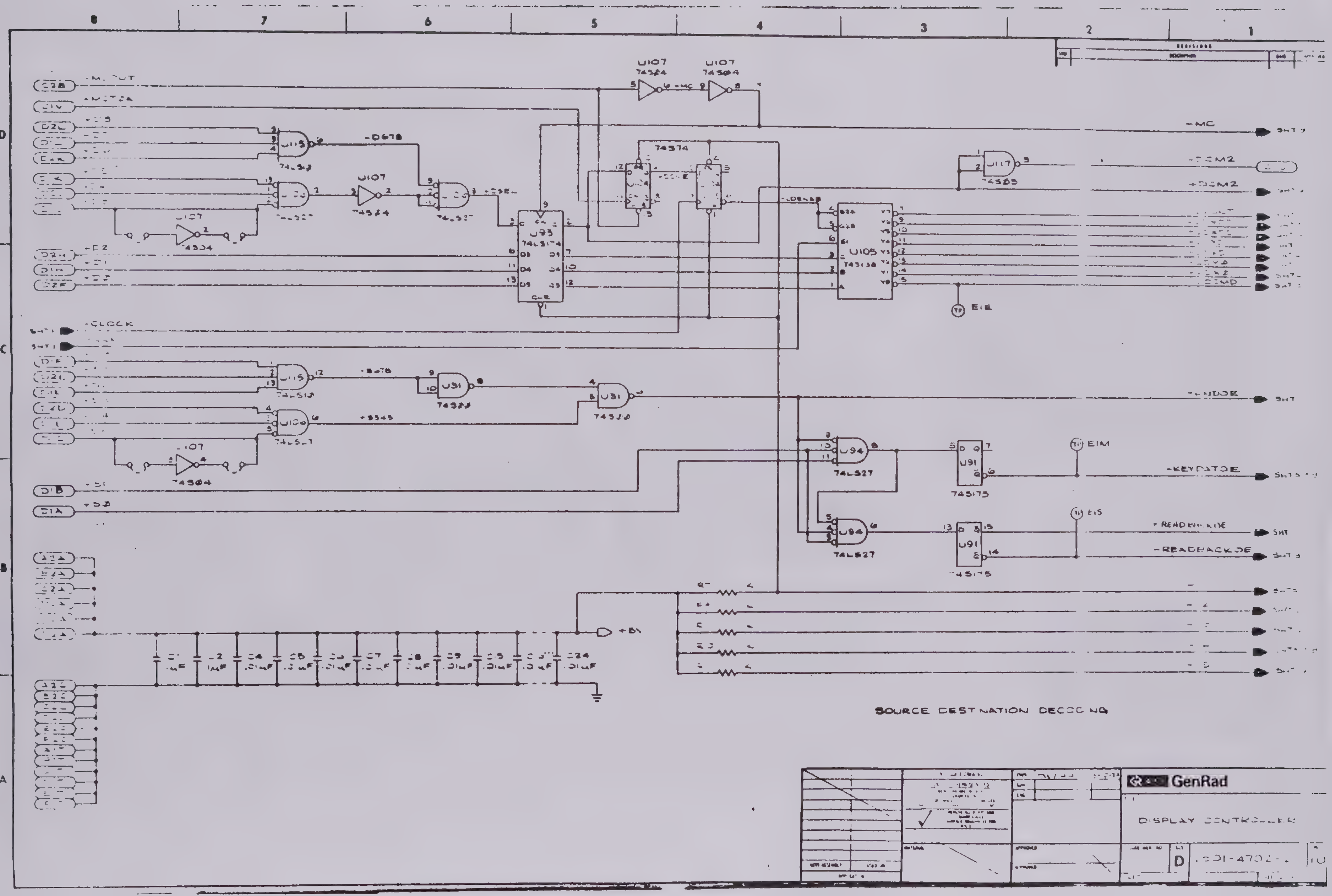
I.C. TABLE				
QTY	I.C. TYPE	REFERENCE DESIGNATION	VCC PIN	GND PIN
2	74LS20	U7[illegible] 83	14	7
3	74S00	U[illegible] 7[illegible] 9[illegible]	14	7
1	74S33	U[illegible]	14	7
3	74S04	U99, 1[illegible] [illegible]7	14	7
4	74S08	U83, 4[illegible] [illegible] 89	14	7
2	74LS10	U115	14	7
1	74S11	U1[illegible]	14	7
2	74LS27	U94, 9[illegible] [illegible]	14	7
2	74LS74	[illegible]	14	7
3	74S74	[illegible]	14	7
1	74S86	U8[illegible]	14	7
3	74LS112	U[illegible]	16	8
2	74S112	U[illegible]	16	8
1	74LS139	[illegible]	16	8
1	74S138	U[illegible]5	[illegible]	8
4	74LS164	U80-83	14	7
10	74LS1[illegible]	[illegible] 42 6[illegible] 6[illegible] 6[illegible] 65-67 84	[illegible]	9
4	74LS[illegible]9	U[illegible]3, [illegible] [illegible]9, 71	[illegible]	8
2	74LS174	U8[illegible] [illegible]	16	8
1	74S175	U5	[illegible]	8
1	74S[illegible]	[illegible]	[illegible]	[illegible]
3	74LS2[illegible]	[illegible] 4 [illegible]	[illegible]	[illegible]
1	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]
1	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]
1	[illegible]	[illegible]	[illegible]	[illegible]
1	[illegible]	[illegible]	[illegible]	[illegible]
1	[illegible]	[illegible]	[illegible]	[illegible]
32	214[illegible]	[illegible] 32-3[illegible] 45-52	[illegible]	[illegible]
5	SPARE	[illegible]	—	8
1	TEST POINTS	U[illegible]	—	—
1	[illegible]	[illegible]	—	—
1	[illegible]	[illegible]	—	—

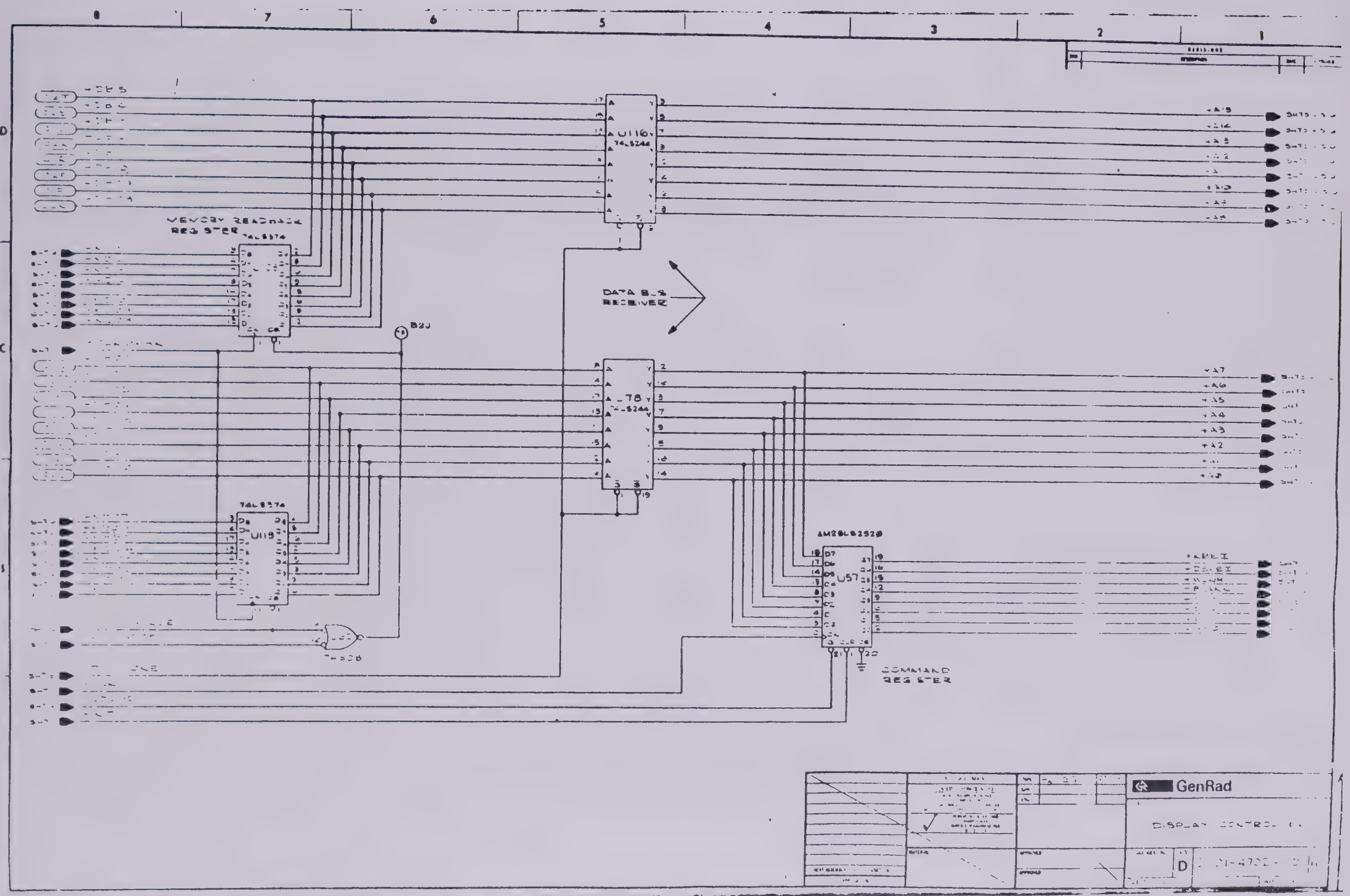
REF DES	
LAST USED	NOT USED
C24	C3
L1	
Q1	
R24	R21
U122	U5 18, 103
Y1	

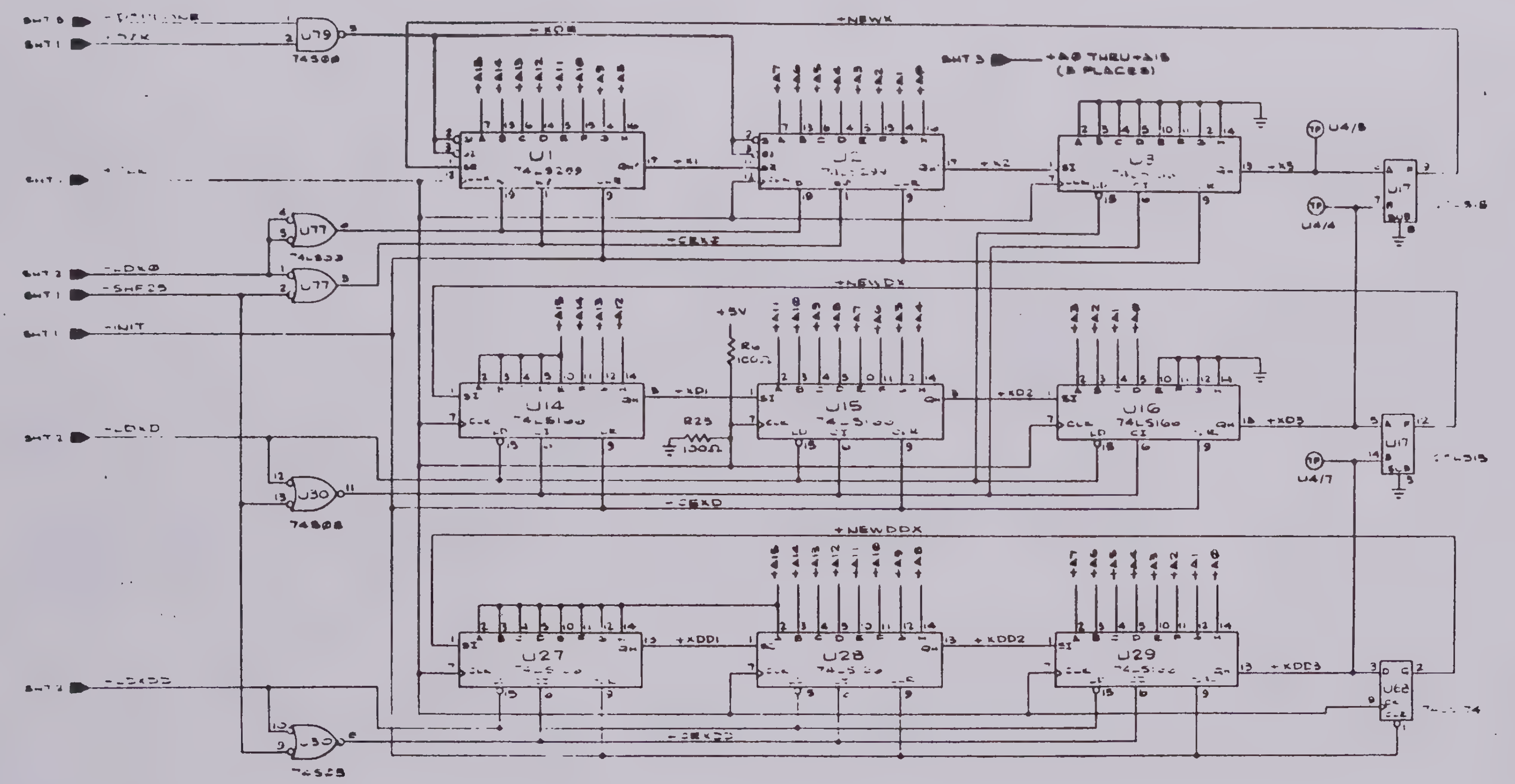
GenRad

DISPLAY CONTROLLER

D [illegible] 4702-20[illegible]


U107
74S04
-MC
+DCM2
74S74
U93
74LS174
U105
74S138
EIE
U117
74S05
-D678
-DSE
+CLOCK
U115
74LS27
U91
74S20
U120
74LS27
U94
74LS27
EIM
EIS
-KEYDATOE
74S175
-READBACKOE
+DS
+S1
SOURCE DESTINATION DECODING
GenRad
DISPLAY CONTROLLER
D


U116
74LS244
U78
74LS244
U57
AM25LS2520
U119
74LS374
74LS374
MEMORY READBACK REGISTER
DATA BUS RECEIVER
COMMAND REGISTER
B2J
+A7
+A6
+A5
+A4
+A3
+A2
GenRad
DISPLAY CONTROL
D

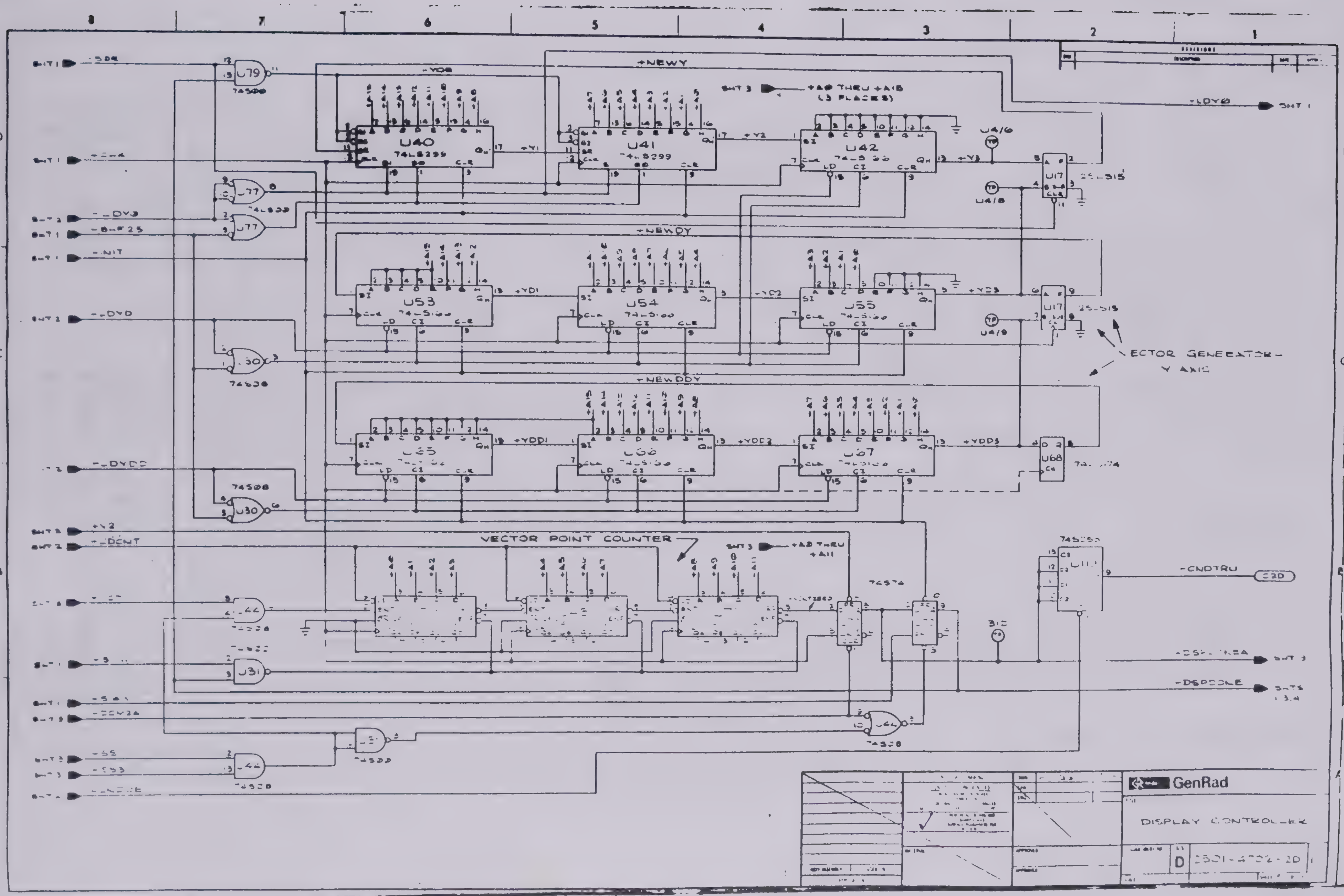


VECTOR GENERATOR – X AXIS

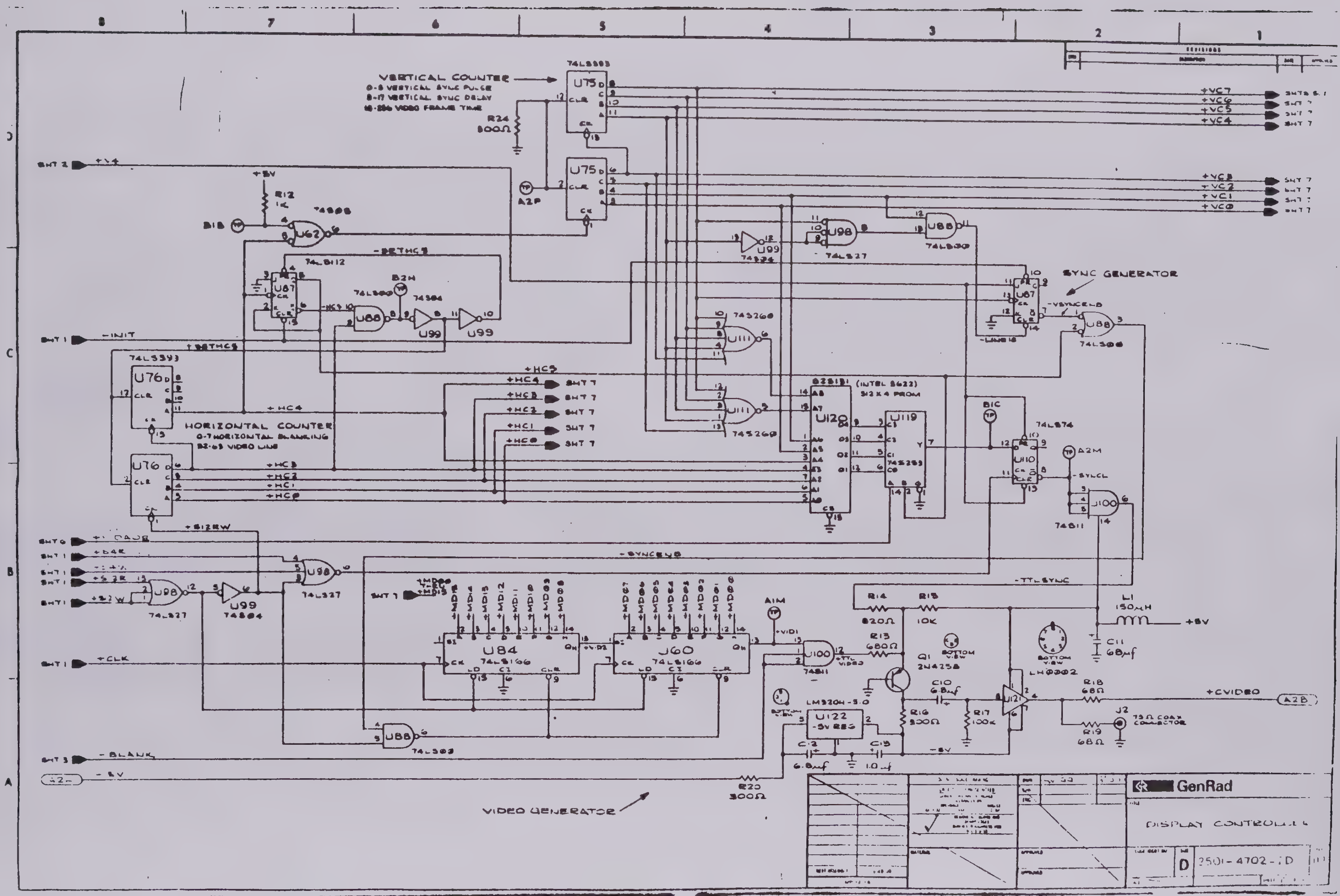
GenRad

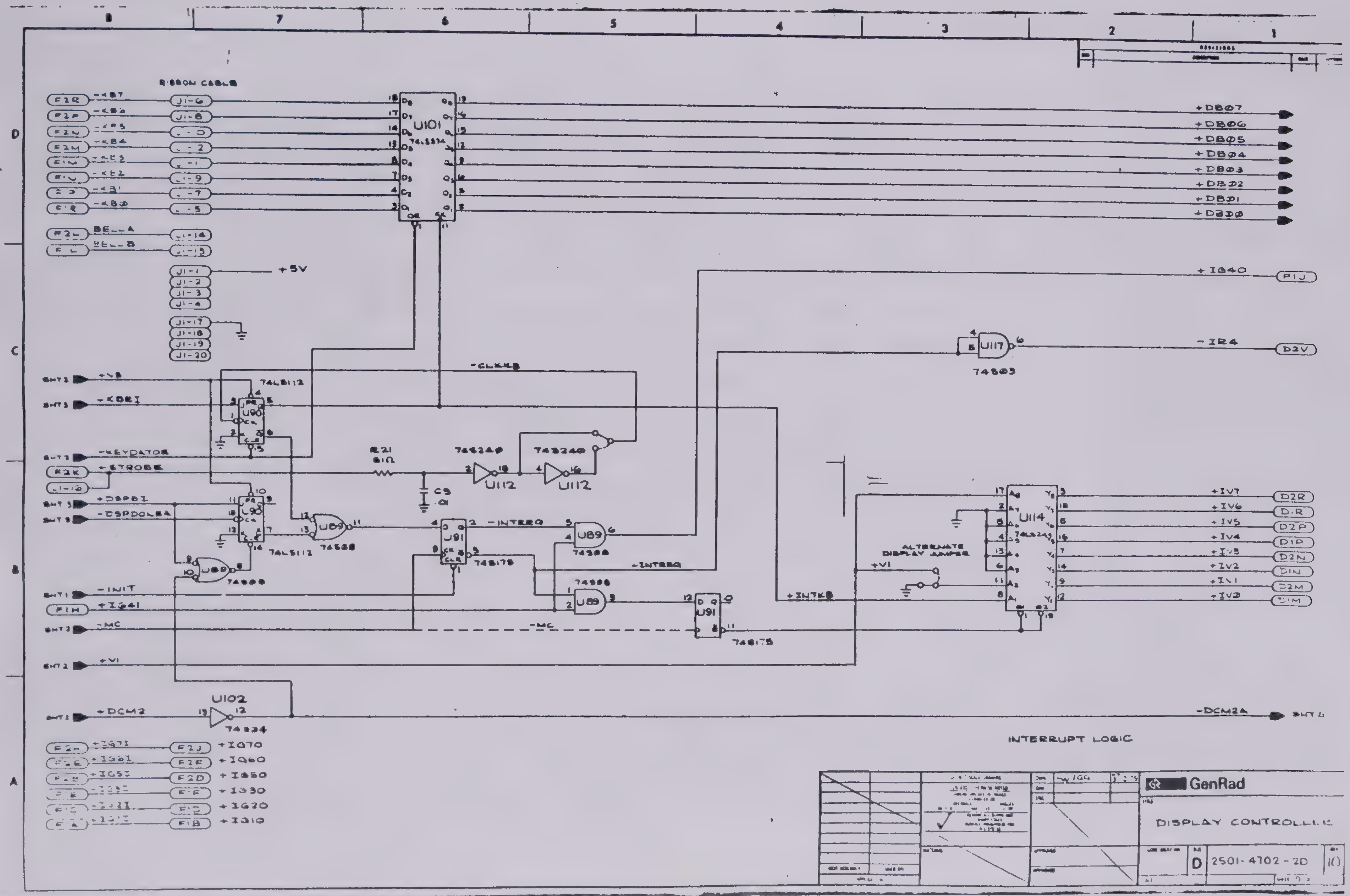
DISPLAY CONTROLLER

D



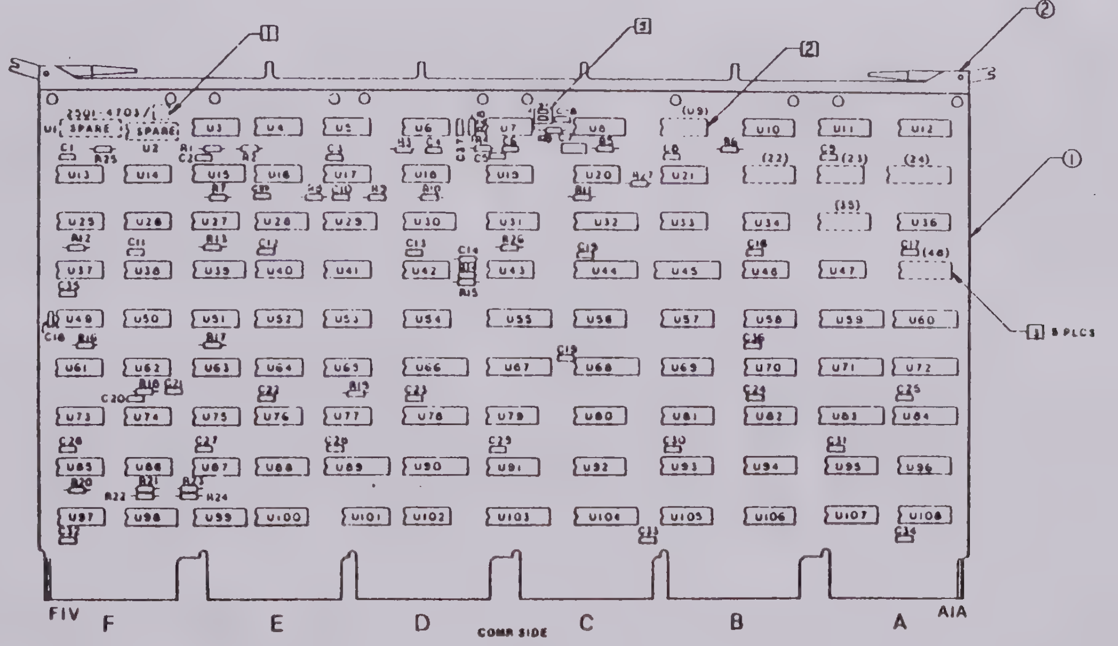
+NEWY
-YDE
U40
74LS299
U41
74LS299
U42
U79
74S00
U77
+Y1
+Y2
+Y3
U4/6
U4/8
U17
25LS15
SHT 3
+A0 THRU +A18
(3 PLACES)
-LDY0
SHT 1
+NEWDY
U53
U54
U55
+YD1
+YD2
+YD3
U4/9
U30
74S08
ECTOR GENERATOR -
Y AXIS
+NEWDDY
U65
U66
U67
+YDD1
+YDD2
+YDD3
U68
VECTOR POINT COUNTER
74S74
74S260
-CNDTRU
-DSPDBLE
U31
U44
74S08
GenRad
DISPLAY CONTROLLER
D


VERTICAL COUNTER
0-8 VERTICAL SYNC PULSE
9-17 VERTICAL SYNC DELAY
18-286 VIDEO FRAME TIME
HORIZONTAL COUNTER
0-7 HORIZONTAL BLANKING
8-63 VIDEO LINE
SYNC GENERATOR
VIDEO GENERATOR
U120 82S131 (INTEL 8622) 512 X 4 PROM
U119 74S253
U110 74LS74
U122 LM320H-5.0 -5V REG
U84 74LS166
U60 74LS166
Q1 2N4258
LH0002
J2 75 Ω COAX CONNECTOR
+CVIDEO
GenRad
DISPLAY CONTROLLER
D 2501-4702-D



RIBBON CABLE
U101
74LS374
+DB07
+DB06
+DB05
+DB04
+DB03
+DB02
+DB01
+DB00
+5V
+I640
-IR4
U117
74S03
-CLKKB
74LS112
U90
R21
C5
.01
74S240
U112
-INTREQ
U89
74S00
U91
74S175
+INTKB
ALTERNATE DISPLAY JUMPER
U114
74LS241
+IV7
+IV6
+IV5
+IV4
+IV3
+IV2
+IV1
+IV0
-KEYDATOR
+STROBE
+DSPBI
-DSPDOLBA
-INIT
-MC
+VI
U102
+DCM2
74S04
-DCM2A
+I070
+I060
+I050
+I030
+I020
+I010
INTERRUPT LOGIC
GenRad
DISPLAY CONTROLLER
D
2501-4702-2D

REV	DESCRIPTION
1	INITIAL RELEASE
2	
3	PER ECN 2107
4	PER ECN 2206
5	[illegible] PER ECN 2355
6	[illegible] PER ECN 2389
7	ADD C39 PER ECN 2433
8	ADD S1 PER ECN 2457
9	ADDED NOTE 5 PER ECN 2569



NOTES:

1. MARK APPLICABLE REV. NO USING .12 MIN. HIGH CHARACTERS, COLOR BLACK, WHERE SHOWN.
2. U9 IS RESERVED FOR TEST POINTS.
3. PACK LOCATIONS U22, U23, U24, U35, U48, ARE RESERVED FOR ADDRESS JUMPERING.
4. AFTER WAVE SOLDERING CLIP ALL IC LEADS.
5. CLIP CONTACTS ON SWITCH 2 OF "S1" FLUSH WITH BODY PRIOR TO INSTALLATION IN P.C.B.

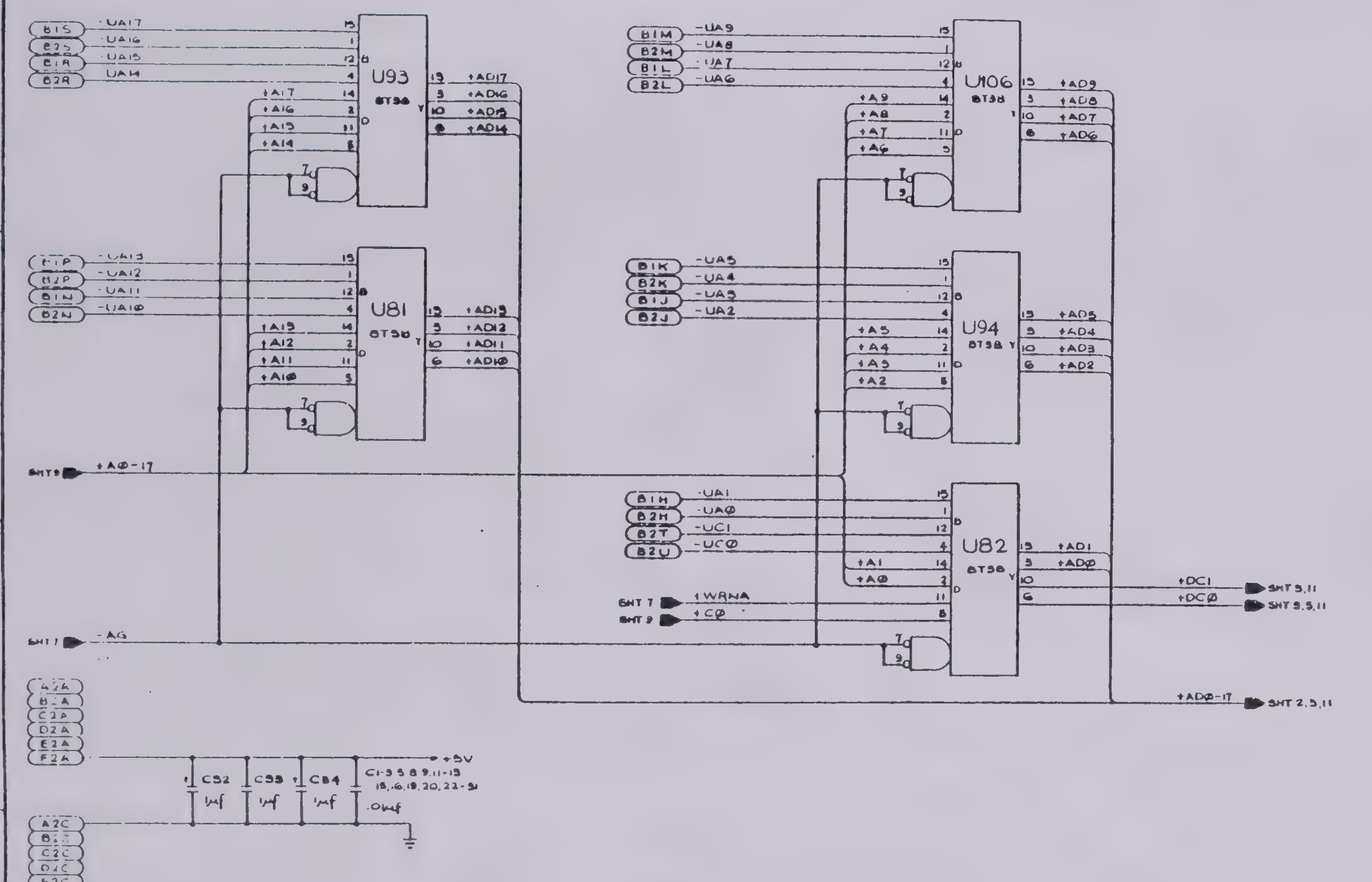
GenRad

PCB ASSEMBLY
UNIBUS INTERFACE BD.

2501-2000 | 2501

2501-4703-1L

D | 2501-4703 1D | 9



2	[illegible]
3	PER ECN 2241
4	PER ECN 2306
4A	U102 LABLED WRONG WAS 74S02 IS 74LS04
5	[illegible] 2347
6	ADD UNUSED GATES [illegible] PER ECN 2309
7	ADD C39 CHANGE R29 FROM 47K TO 12K PER ECN 2433
8	ADD 91 PER ECN 2457
9	TRACKING PER ECN 2569

I.C TABLE

QTY	IC TYPE	REFERENCE DESIGNATIONS
9	74S00	U6 18 25, 38 41, 46 61 77 87
2	74S02	U7 97
2	74S03	U18 74
2	74S04	U17 43
6	74S08	U6 14 19 26 50, 86
1	74S11	U3
2	74S20	U53 62
1	74S30	U33
2	74S74	U13, 37
13	74LS74	[illegible] 13, 75 76, [illegible]
1	74S112	U31
4	74S153	U10 12, [illegible]
2	74S158	U88 100
1	74S140	U52
1	74LS02	U65
3	74LS04	U34 47 102
1	74LS20	U101
1	74LS21	U54
3	74LS112	U28 53 59
2	74LS123	U15 29
1	74LS125	U42
4	74LS157	U79 80 91, 92
5	74LS163A	U56-58 69 70
10	74LS244	U32, 44 45 55, 60 67 68 89 103 104
8	74LS374	U57, 66, 71 72 78 83 84 90
1	9602	U8
12	8T38	U81 82 93-96, 98 99 105 [illegible]
4	JUMPERS	U27-24 35 48

SPARE GATES

IC TYPE	REF DES	QTY
74S04	U43	1
74S02	U97	2
74S08	U14	1
74S11	U3	1
74LS02	U65	2
74LS21	U54	1
74LS125	U42	1

REFERENCE DESIGNATIONS

LAST USED	NOT USED
C59	—
R29	—
U108	U1, 2, 3

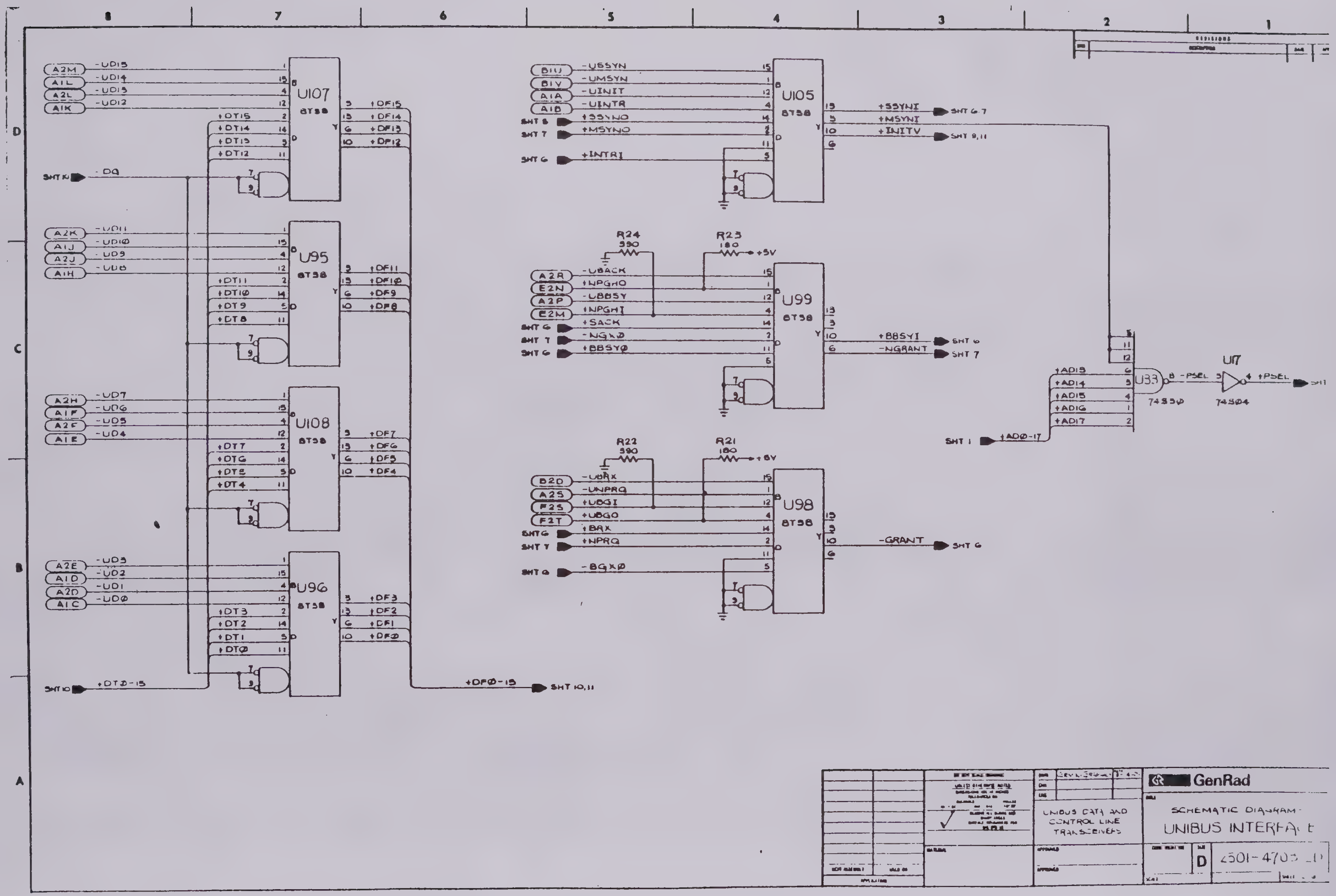
GenRad

UNIBUS ADDRESS TRANSCEIVERS

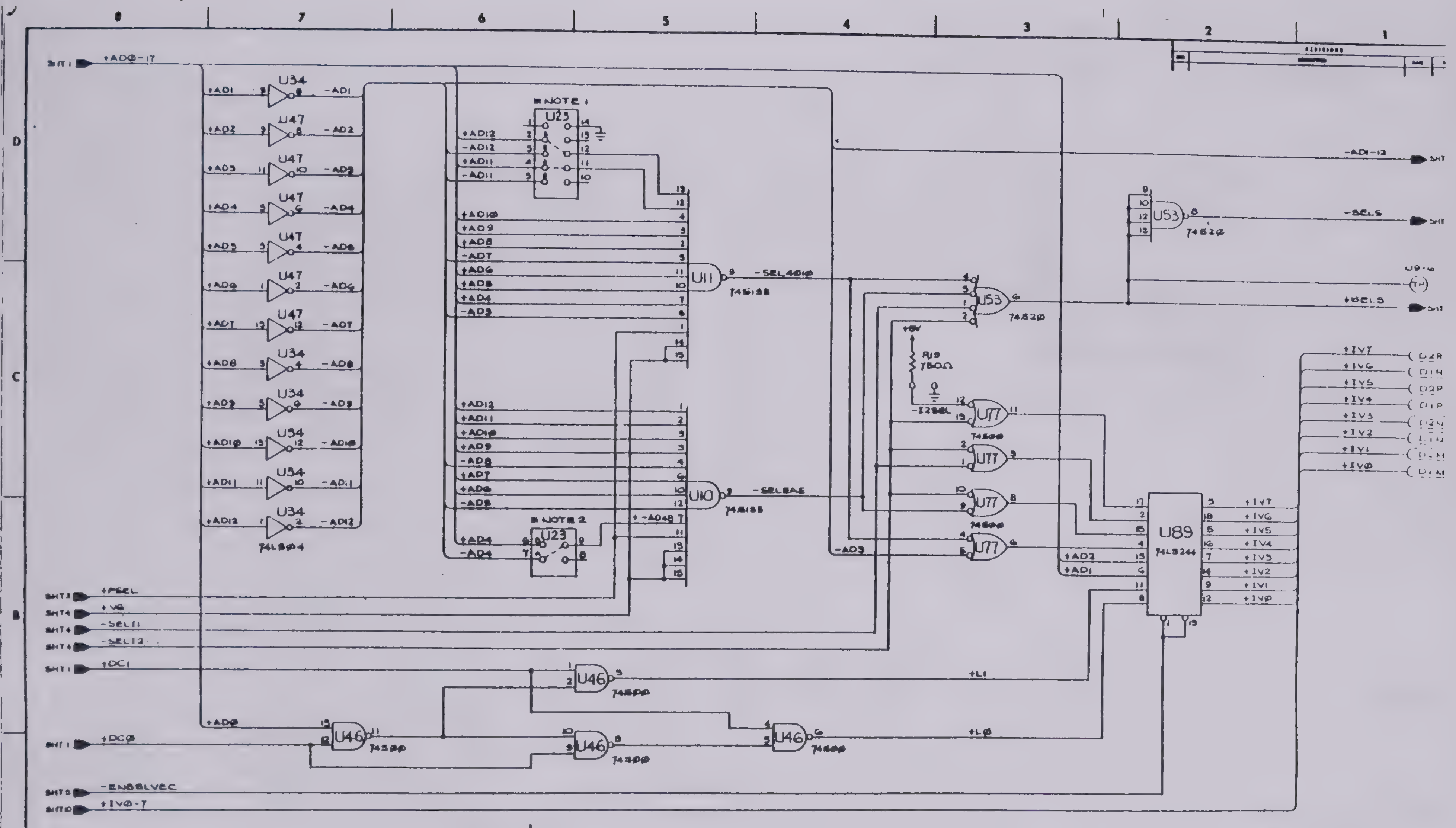
SCHEMATIC DIAGRAM

UNIBUS INTERFACE

D 2501-470 [illegible]



U107
8T38
U95
8T38
U108
8T38
U96
8T38
U105
8T38
U99
8T38
U98
8T38
U33
74S30
U17
74S04
R24
390
R23
180
R22
390
R21
180
+5V
-UD15
-UD14
-UD13
-UD12
-UD11
-UD10
-UD9
-UD8
-UD7
-UD6
-UD5
-UD4
-UD3
-UD2
-UD1
-UD0
-DQ
+DT0-15
+DF0-15
SHT 10,11
-USSYN
-UMSYN
-UINIT
-UINTR
+SSYNO
+MSYNO
+INTRI
+SSYNI
+MSYNI
+INITV
SHT 6,7
SHT 9,11
-UBACK
+NPGHO
-UBBSY
+NPGHI
+SACK
-NGXD
+BBSY0
+BBSYI
-NGRANT
-UBRX
-UNPRQ
+UBGI
+UBGO
+BRX
+NPRQ
-BGX0
-GRANT
+AD13
+AD14
+AD15
+AD16
+AD17
+AD0-17
-PSEL
+PSEL
GenRad
UNIBUS DATA AND CONTROL LINE TRANSCEIVERS
SCHEMATIC DIAGRAM-
UNIBUS INTERFACE
D
2501-4703



* NOTE 1
ADØ ADDRESS - SELECT A: 7775ØØ - 777566
SELECT B: 7635ØØ - 763566

** NOTE 2
EAE ADDRESS - SELECT A: 7773ØØ - 777316
SELECT B: 7773ØØ - 777336

ADØ	DC1	DCØ	L1	LØ	
0	0	0	1	1	WORD TO MASTER
0	0	1	1	1	
1	0	0	1	1	
1	0	1	1	1	
0	1	0	0	0	WORD TO SLAVE
1	1	0	0	0	
0	1	1	0	1	LOW BYTE TO SLAVE
1	1	1	1	0	HIGH BYTE TO SLAVE

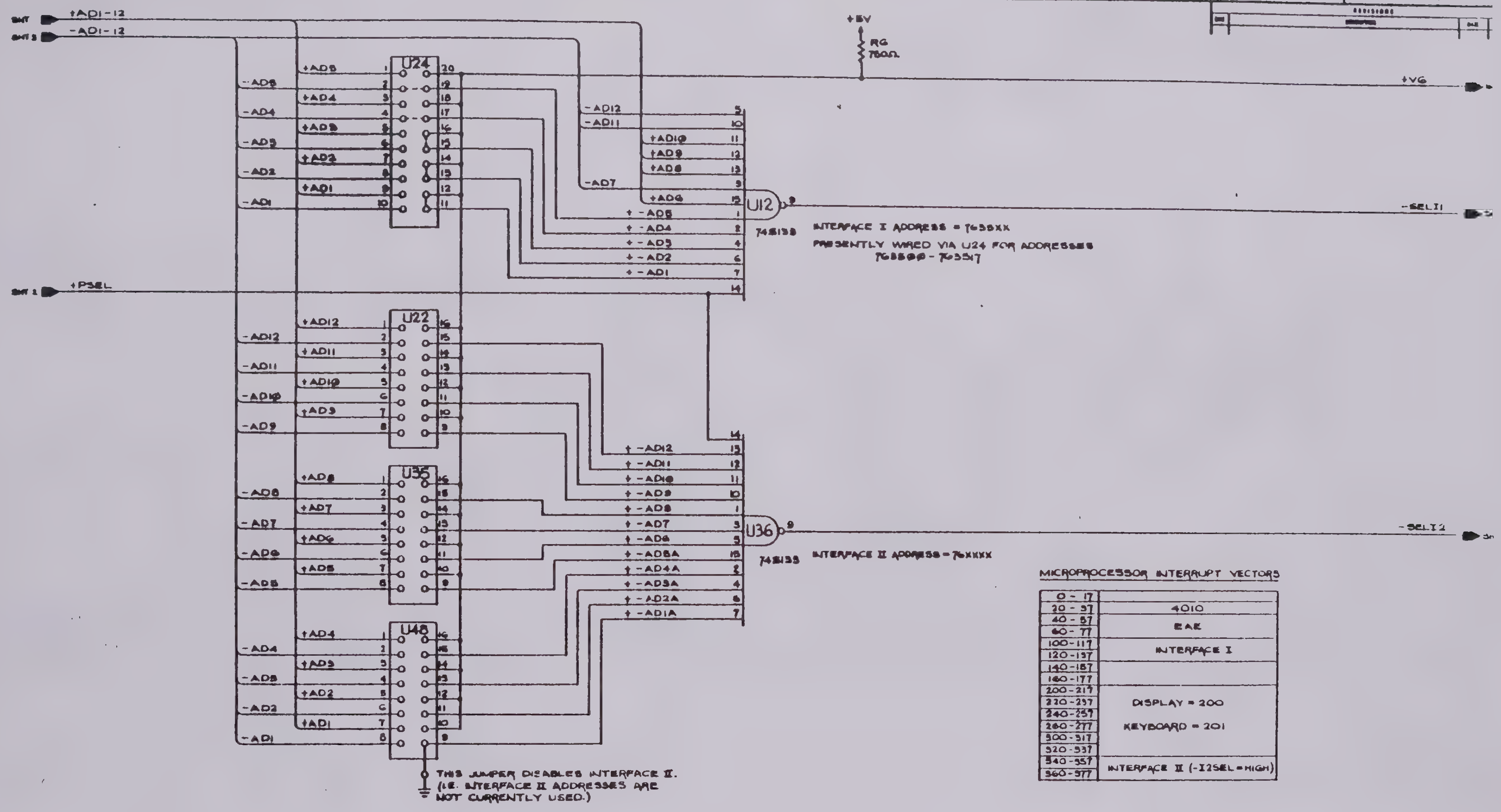
SLAVE INTERFACE ADDRESS AND VECTOR SELECTION

GenRad

SCHEMATIC DIAGRAM

UNIBUS INTERFACE

D 2501-4703-2D



MICROPROCESSOR INTERRUPT VECTORS

0 - 17	
20 - 37	4010
40 - 57	EAE
60 - 77	
100 - 117	INTERFACE I
120 - 137	
140 - 157	
160 - 177	
200 - 217	DISPLAY = 200
220 - 237	
240 - 257	KEYBOARD = 201
260 - 277	
300 - 317	
320 - 337	
340 - 357	INTERFACE II (-I2SEL = HIGH)
360 - 377	

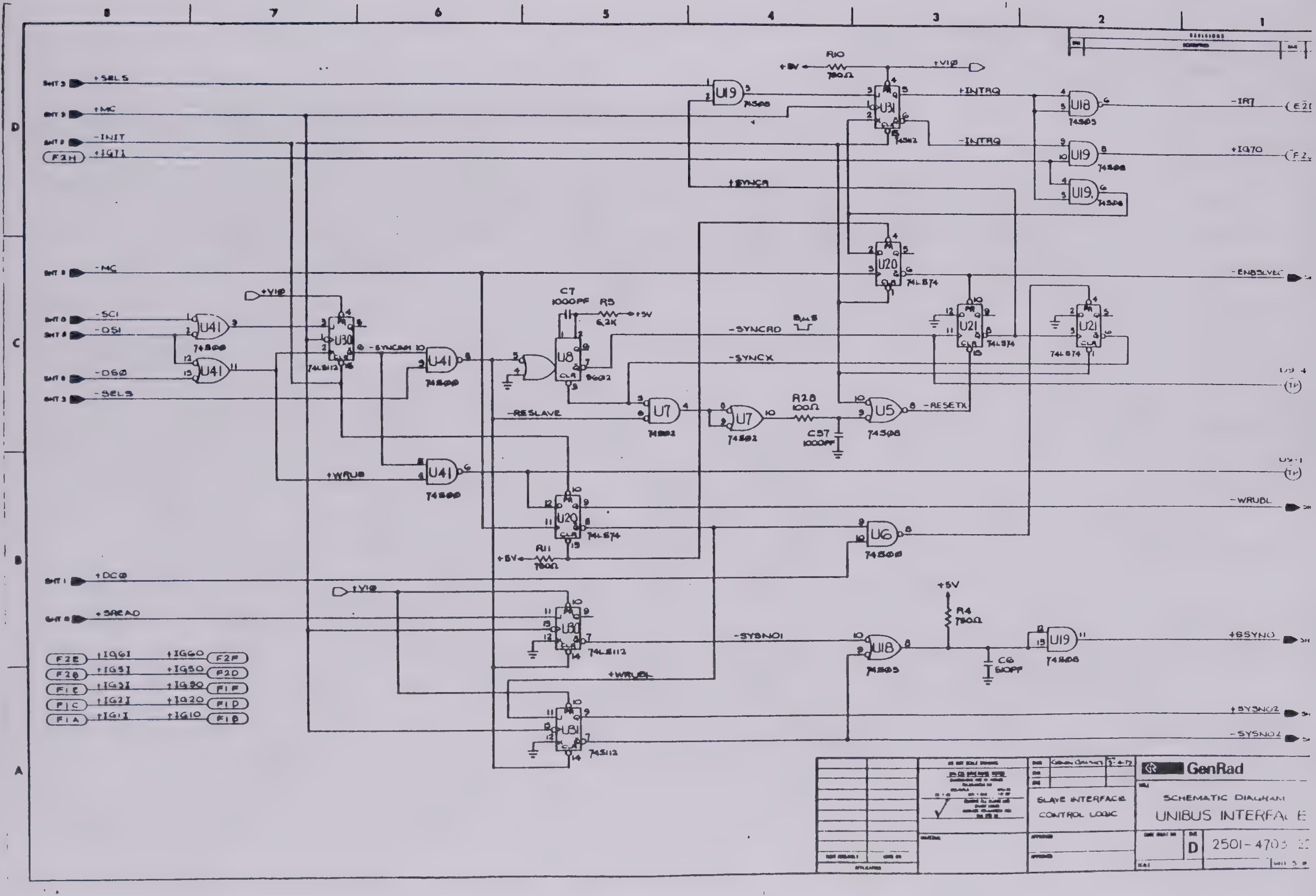
SLAVE INTERFACE ADDRESS AND VECTOR SELECTION

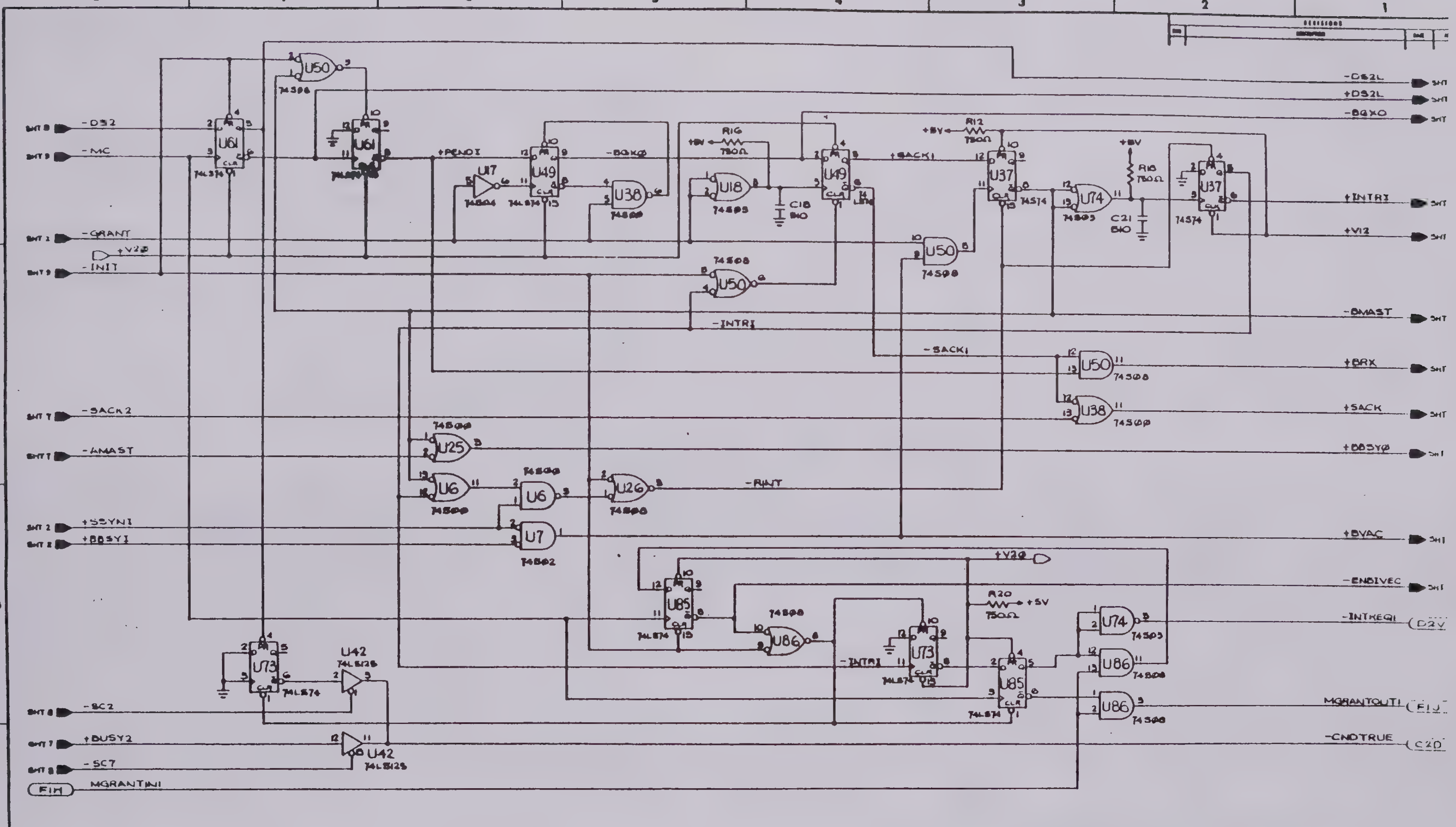
GenRad

SCHEMATIC DIAGRAM

UNIBUS INTERFACE

D 2501-470...


+SELS
+MC
-INIT
+IG71
-MC
-SC1
-DS1
-DS0
-SELS
+DC0
+SREAD
+IG61 +IG60
+IG51 +IG50
+IG31 +IG30
+IG21 +IG20
+IG11 +IG10
+V10
-SYNCRD
-SYNCX
-RESLAVE
+WRUB
+WRUBL
-SYSNO1
+INTRQ
-INTRQ
+SYNCR
-RESETX
-IRQ
+IG70
-ENBSLVE
-WRUBL
+BSYNO
+SYSNO2
-SYSNO2
R10 750Ω
R5 6.2K
C7 1000PF
R28 100Ω
C57 1000PF
R11 750Ω
R4 750Ω
C6 510PF
+5V
U19
U31
U18
U20
U21
U30
U41
U8
U7
U5
U6
74S00
74S112
74LS74
74S02
74S08
74S03
74LS112
74S112
9602
GenRad
SCHEMATIC DIAGRAM
UNIBUS INTERFACE
SLAVE INTERFACE CONTROL LOGIC
D
2501-4703

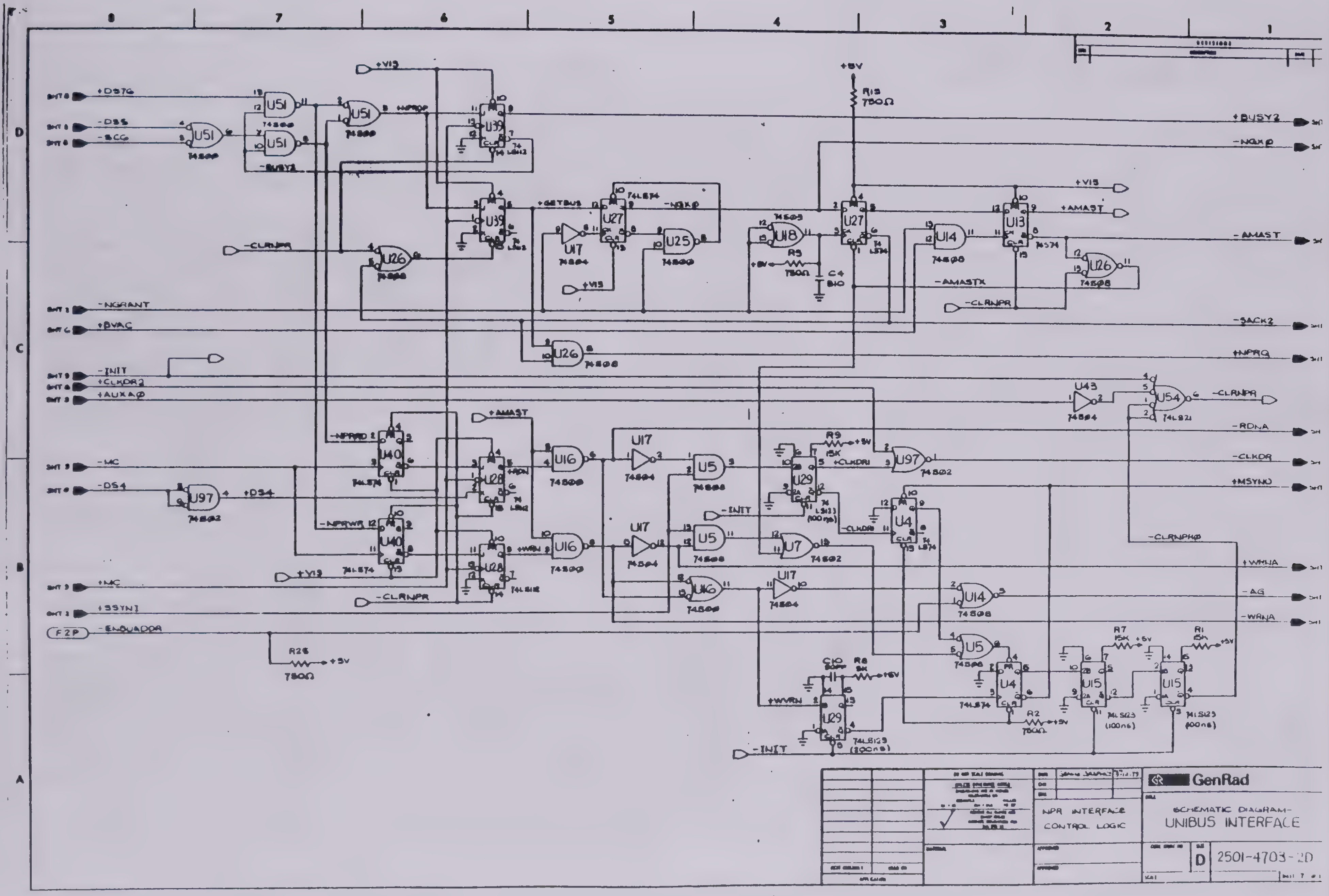


GenRad

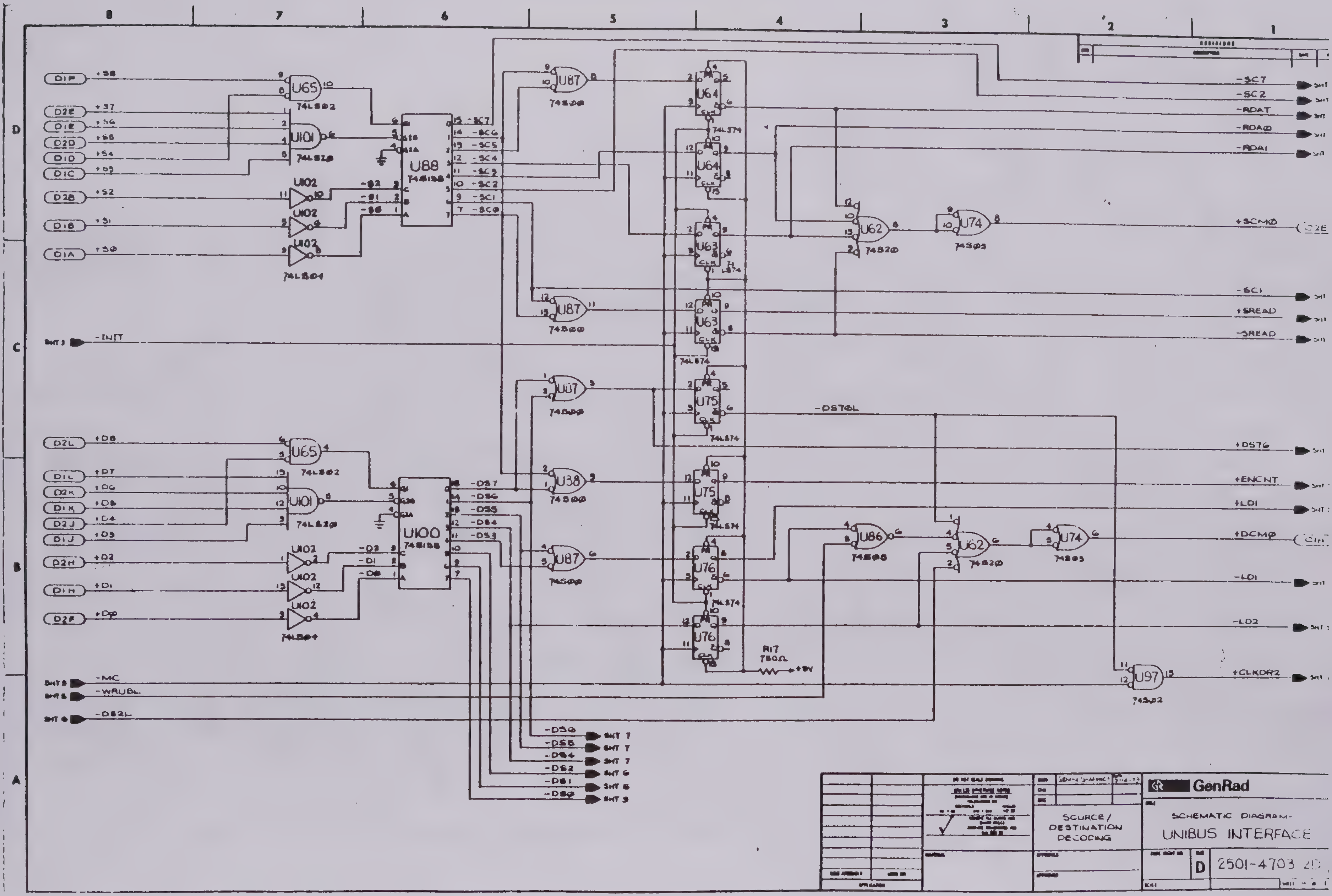
SCHEMATIC DIAGRAM-
UNIBUS INTERFACE

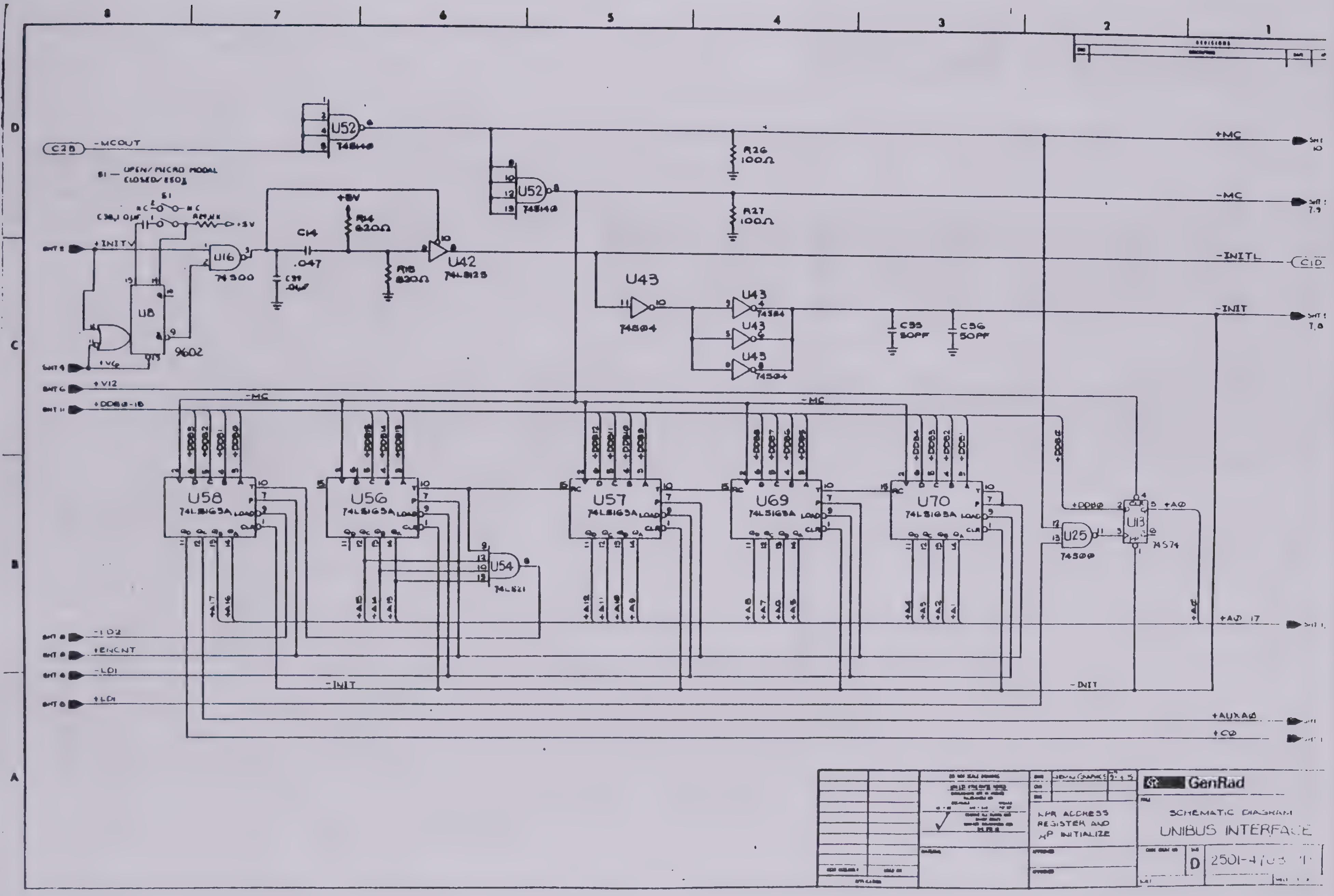
INTERRUPT
INTERFACE
CONTROL LOGIC

D 2501-4703 2D

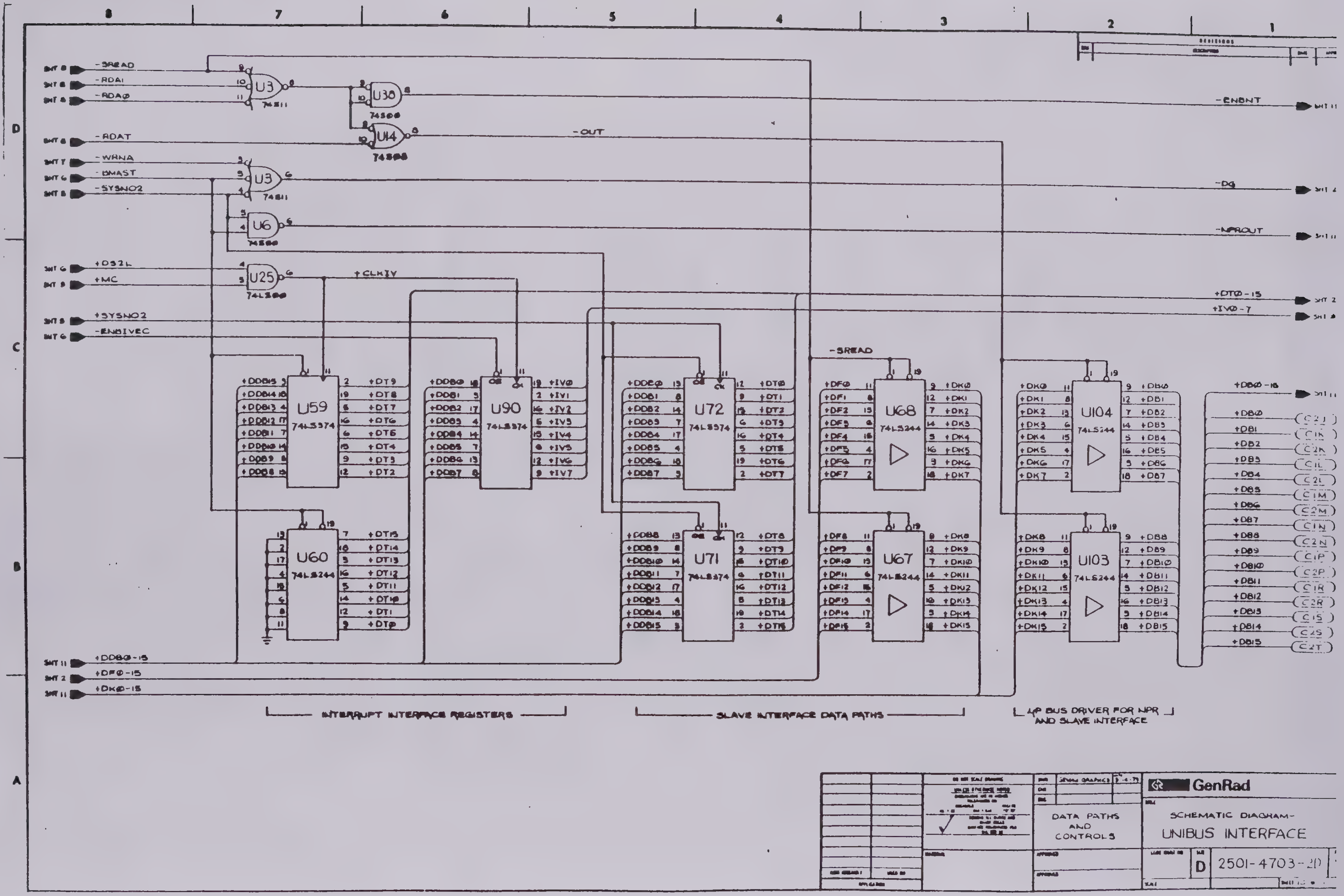


+DSTG
-DSS
-SCG
-NGRANT
+BVAC
-INIT
+CLKDR2
+AUXAØ
-MC
-DS4
+MC
+SSYNI
F2P
-ENQUADDR
+BUSY2
-NGXØ
-AMAST
-SACK2
+NPRQ
-CLRNPR
-RDNA
-CLKDR
+MSYNO
+WHNA
-AG
-WRNA
+V15
+AMAST
+GETBUS
-AMASTX
-CLRNPHØ
+CLKDRI
+WVRN
-NPRRD
-NPRWR
+DS4
R13 750Ω
R5 750Ω
R25 750Ω
R9 15K
R8 5K
R7 15K
R1 15K
R2 750Ω
C4 810
U51
U39
U26
U27
U17
U25
U18
U14
U13
U43
U54
U40
U28
U16
U5
U29
U97
U7
U4
U15
74S00
74S02
74S04
74S08
74S74
74LS74
74LS21
74S112
74LS123
+5V
GenRad
SCHEMATIC DIAGRAM-
UNIBUS INTERFACE
NPR INTERFACE
CONTROL LOGIC
D
2501-4703-2D

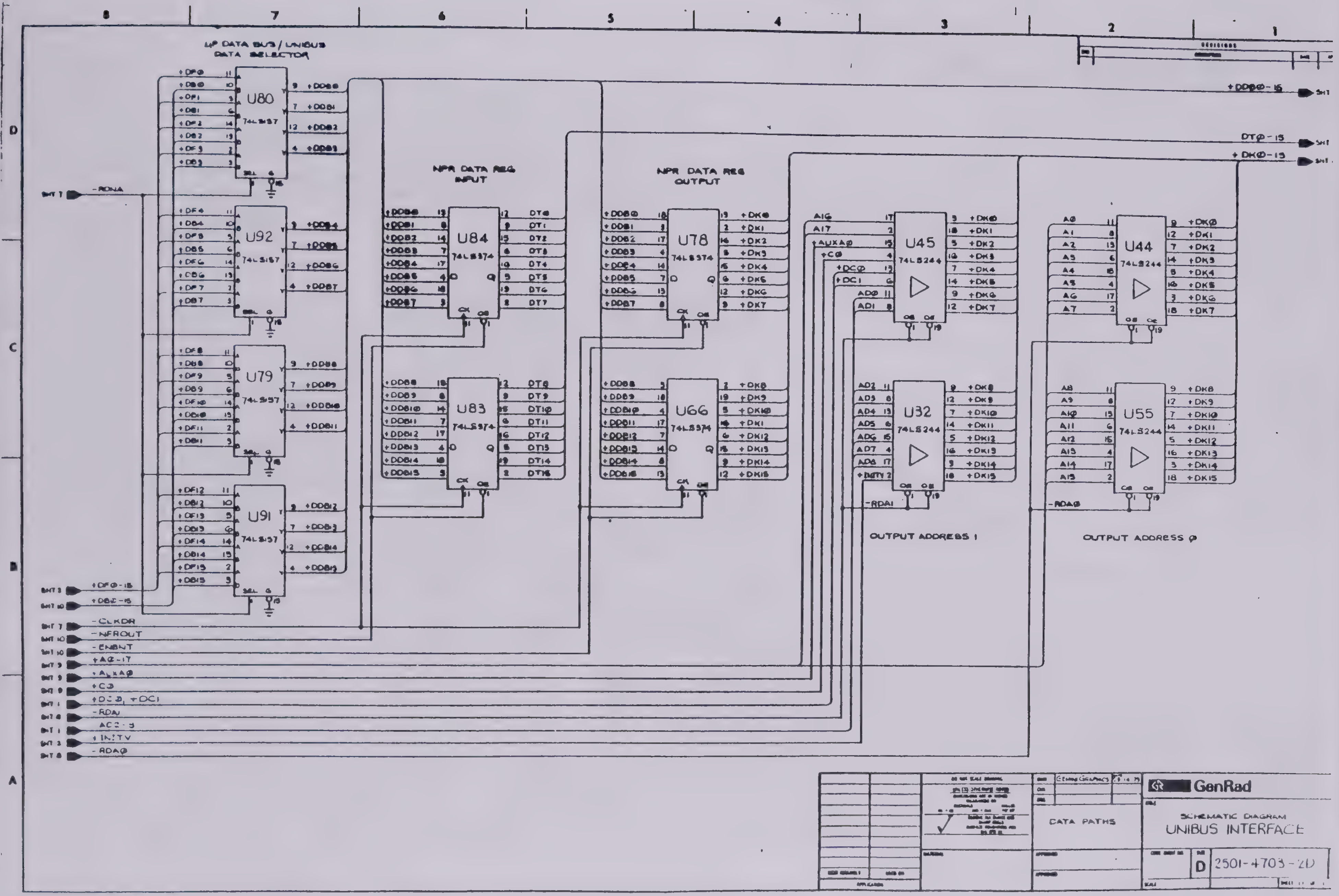

GenRad
SCHEMATIC DIAGRAM-
UNIBUS INTERFACE
SOURCE / DESTINATION DECODING
D
2501-4703
U65
74LS02
U101
74LS20
U102
74LS04
U88
74S138
U100
U87
74S00
U38
U64
74LS74
U63
U75
U76
U62
74S20
U74
74S03
U86
U97
74S02
R17
750Ω
+5V
-SC7
-SC2
-RDAT
-RDAØ
-RDA1
+SCMØ
-SC1
+SREAD
-SREAD
-INIT
-DS7ØL
+DS76
+ENCNT
+LD1
+DCMØ
-LD1
-LD2
+CLKDR2
-MC
-WRUBL
-DS2L
-DS6
-DS5
-DS4
-DS2
-DS1
-DSØ
SHT 7
SHT 6
SHT 5
SHT 3



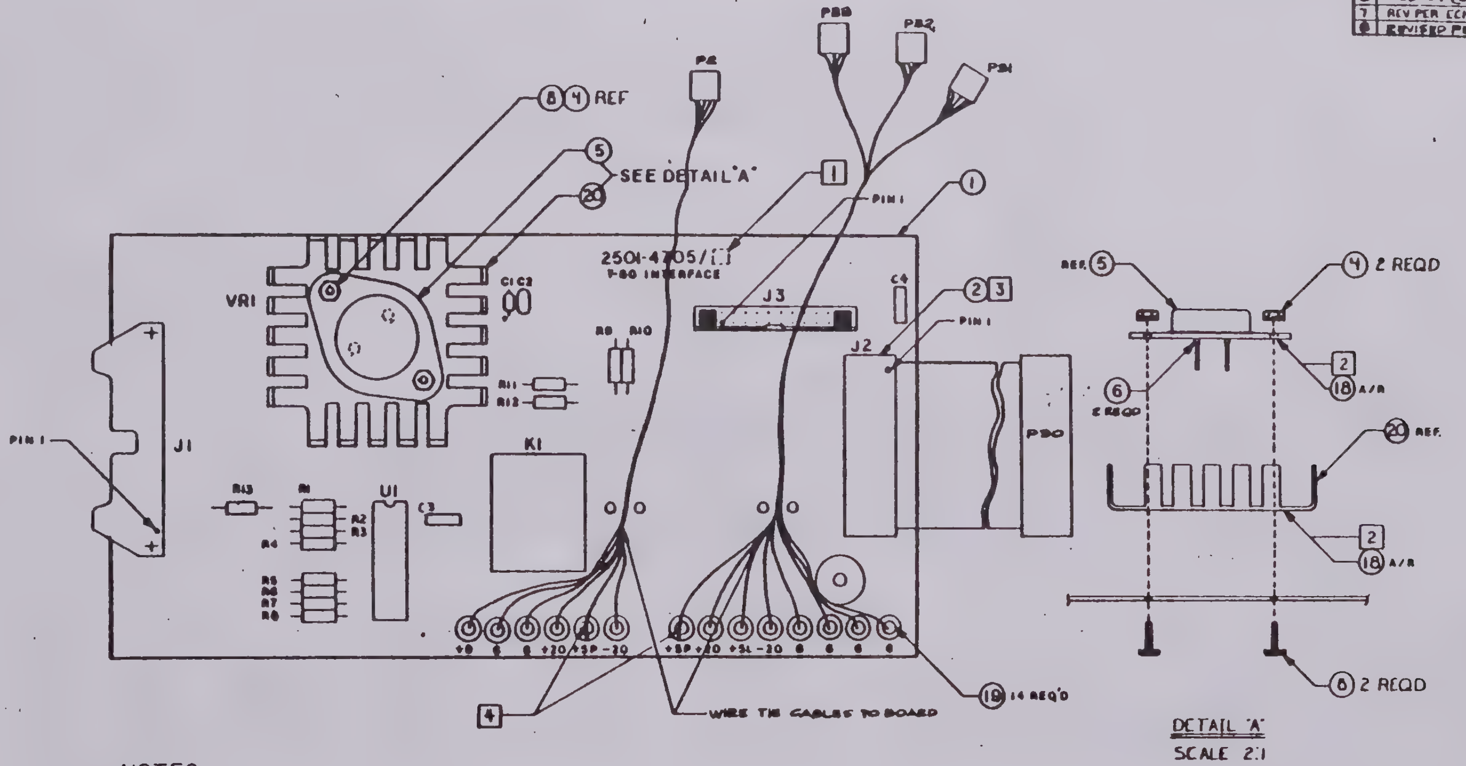
C2D
-MCOUT
S1 — OPEN/MICRO MODAL CLOSED/ESOI
U52 74S140
U52 74S140
R26 100Ω
R27 100Ω
+MC
-MC
+INITV
U16 74S00
U8 9602
C14 .047
R14 820Ω
R18 820Ω
+5V
U42 74LS125
-INITL
C1D
-INIT
U43 74S04
C55 50PF
C56 50PF
+V12
+DDB0-18
-MC
U58 74LS163A
U56 74LS163A
U57 74LS163A
U69 74LS163A
U70 74LS163A
U54 74LS21
U25 74S00
U13 74S74
+DDB0
+A0
+AD 17
-LD2
+ENCNT
-LD1
+LD1
-INIT
+AUXA0
+C0
GenRad
SCHEMATIC DIAGRAM
UNIBUS INTERFACE
NPR ACCESS REGISTER AND µP INITIALIZE
D
2501-4703



-SREAD
-RDA1
-RDAØ
-RDAT
-WRNA
-BMAST
-SYSNO2
+DS2L
+MC
+SYSNO2
-ENBIVEC
U3
74S11
U30
74S00
U14
74S08
U6
74S00
U25
74LS00
-ENBNT
-OUT
-DG
-NPROUT
+CLKIV
+DTØ-15
+IVØ-7
U59
74LS374
U60
74LS244
U90
74LS374
U72
74LS374
U71
74LS374
U68
74LS244
U67
74LS244
U104
74LS244
U103
74LS244
+DBØ-15
+DDBØ-15
+DFØ-15
+DKØ-15
INTERRUPT INTERFACE REGISTERS
SLAVE INTERFACE DATA PATHS
μP BUS DRIVER FOR NPR AND SLAVE INTERFACE
DATA PATHS AND CONTROLS
GenRad
SCHEMATIC DIAGRAM-
UNIBUS INTERFACE
D
2501-4703-2D



µP DATA BUS / UNIBUS DATA SELECTOR
U80 74LS157
U92 74LS157
U79 74LS157
U91 74LS157
NPR DATA REG INPUT
U84 74LS374
U83 74LS374
NPR DATA REG OUTPUT
U78 74LS374
U66 74LS374
U45 74LS244
U32 74LS244
OUTPUT ADDRESS 1
U44 74LS244
U55 74LS244
OUTPUT ADDRESS Ø
+DDBØ-15
DTØ-15
+DKØ-15
-RDNA
+DFØ-15
+DBØ-15
-CLKDR
-NFROUT
-ENBNT
+AØ-17
+AUXAØ
+CØ
+DCØ, +DC1
-RDA1
ADØ-3
+INITV
-RDAØ
GenRad
SCHEMATIC DIAGRAM
UNIBUS INTERFACE
DATA PATHS
D
2501-4703-2D



NOTES:

1. MARK APPLICABLE REV NO. USING .12 MIN. HIGH CHARACTERS. COLOR BLACK, WHERE SHOWN.
2. USE THERMAL JOINT COMPOUND BETWEEN TRANSISTOR AND HEAT SINK. ALSO BETWEEN HEAT SINK AND PLANE AREA ON BOARD.
3. MASK HOLES FOR J2 (ITEM 2) BEFORE WAVE SOLDERING. HAND SOLDER J2 (ITEM 2) TO PREVENT HEAT DAMAGE TO CABLE.
4. STRIP CABLE END .187 AND HAND SOLDER TO BOARD (SEE 2501-2067-40 WIRE LIST)

REVISIONS

REV	DESCRIPTION
2	PER ECN 2087, 2114
3	PER ECN 2167
4	PER ECN 2244
5	TRACKED PER ECN 2290
6	ADD C4 (ECN 2317)
7	REV PER ECN 2445
8	REVISED PER ECN 2524

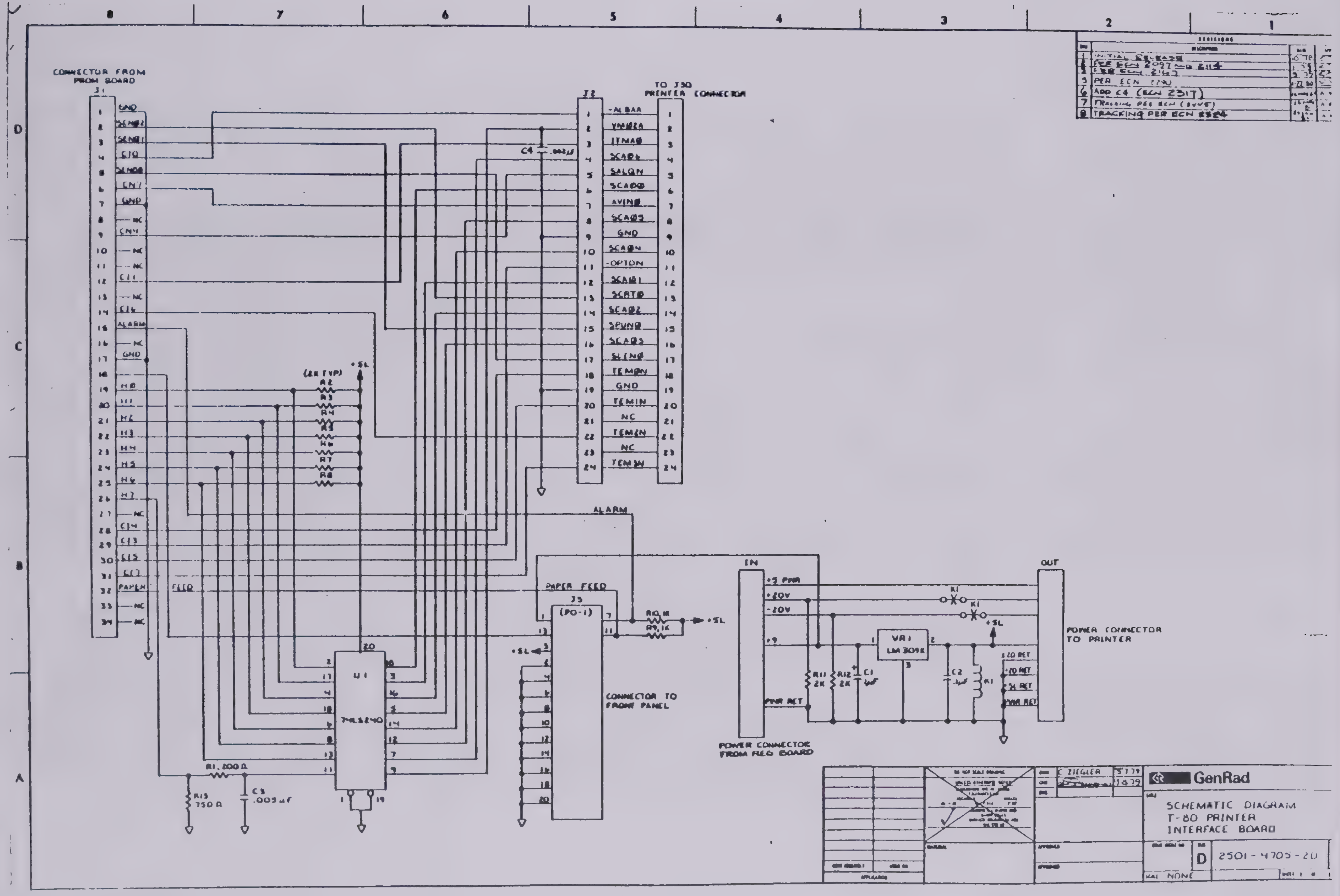
GenRad

PCB ASSEMBLY
PRINTER INFC (T80)

SEE: 2501-4705-1L

2801-2000 | 2501

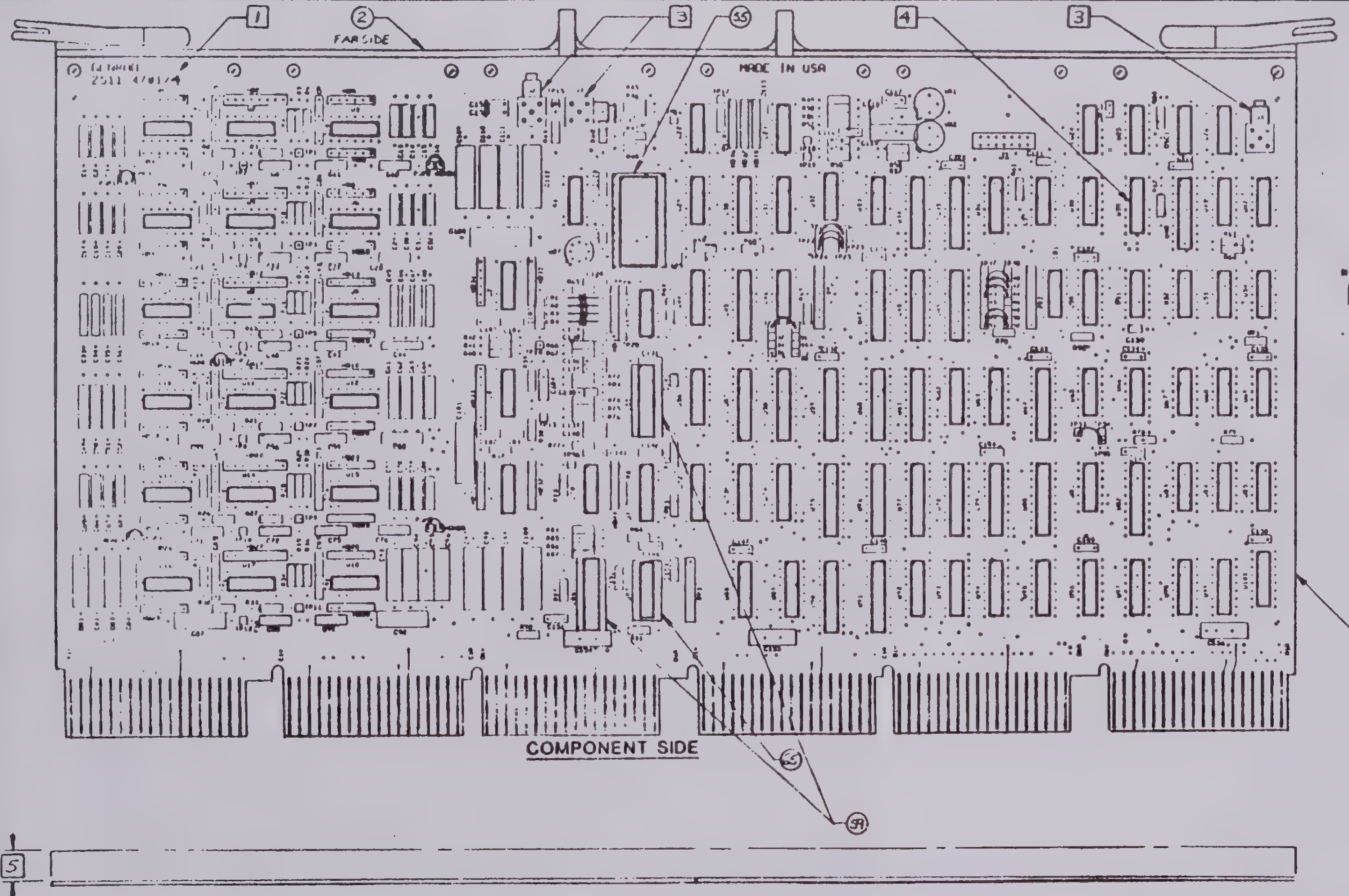
D | 2501-4705 10 | 8


CONNECTOR FROM PROM BOARD
J1
TO J30 PRINTER CONNECTOR
J2
ALARM
PAPER FEED
J5 (PO-1)
CONNECTOR TO FRONT PANEL
U1
74LS240
(2K TYP)
R1, 200 Ω
R15 750 Ω
C3 .005 µF
C4
VR1 LM 309K
C1
C2 .1µF
R11 2K
R12 2K
K1
IN
OUT
+5 PWR
+20V
-20V
+9
PWR RET
+20 RET
-20 RET
+5L RET
POWER CONNECTOR FROM REG BOARD
POWER CONNECTOR TO PRINTER
INITIAL RELEASE
PER ECN 2097 AND 2114
PER ECN 2142
PER ECN 2190
ADD C4 (ECN 2317)
TRACKING PER ECN 8524
C. ZIEGLER
GenRad
SCHEMATIC DIAGRAM
T-80 PRINTER
INTERFACE BOARD
D
2501-4705-20
NONE

8	7	6	5	4	3	2	1

REVISIONS

REV	DESCRIPTION	DATE	APPROVED
2	REVISED PER ECN [illegible]		
3	REVISED PER ECN [illegible]		
4	REVISED PER ECN [illegible]		
5	TRACKING PER ECN 2846		



NOTES:

1. MARK APPLICABLE REVISION LEVEL USING .12 HIGH CHARACTERS, COLOR YELLOW EPOXY INK
2. AFTER WAVE SOLDERING, CLIP ALL COMPONENT LEADS
3. ORIENT CONNECTORS AS SHOWN.
4. PROGRAM PRIOR TO INSTALLING.
5. MAXIMUM COMPONENT HEIGHT .50 IN.

JUMPER TABLE

No.	FROM	TO
1	TP20	TP21
2	TP22	TP23
3	TP24	TP25
4	TP29	TP30
5	TP39	TP40
6	TP41	TP42
7	TP43	TP44
8	TP49	TP50
9	TP51	TP52
10	TP53	TP55
A	PJP1	AGND 1
B	PJP2	AGND 2
C	PJP3	AGND 3
D	PJP4	AGND 4
E	PJP5	AGND 5

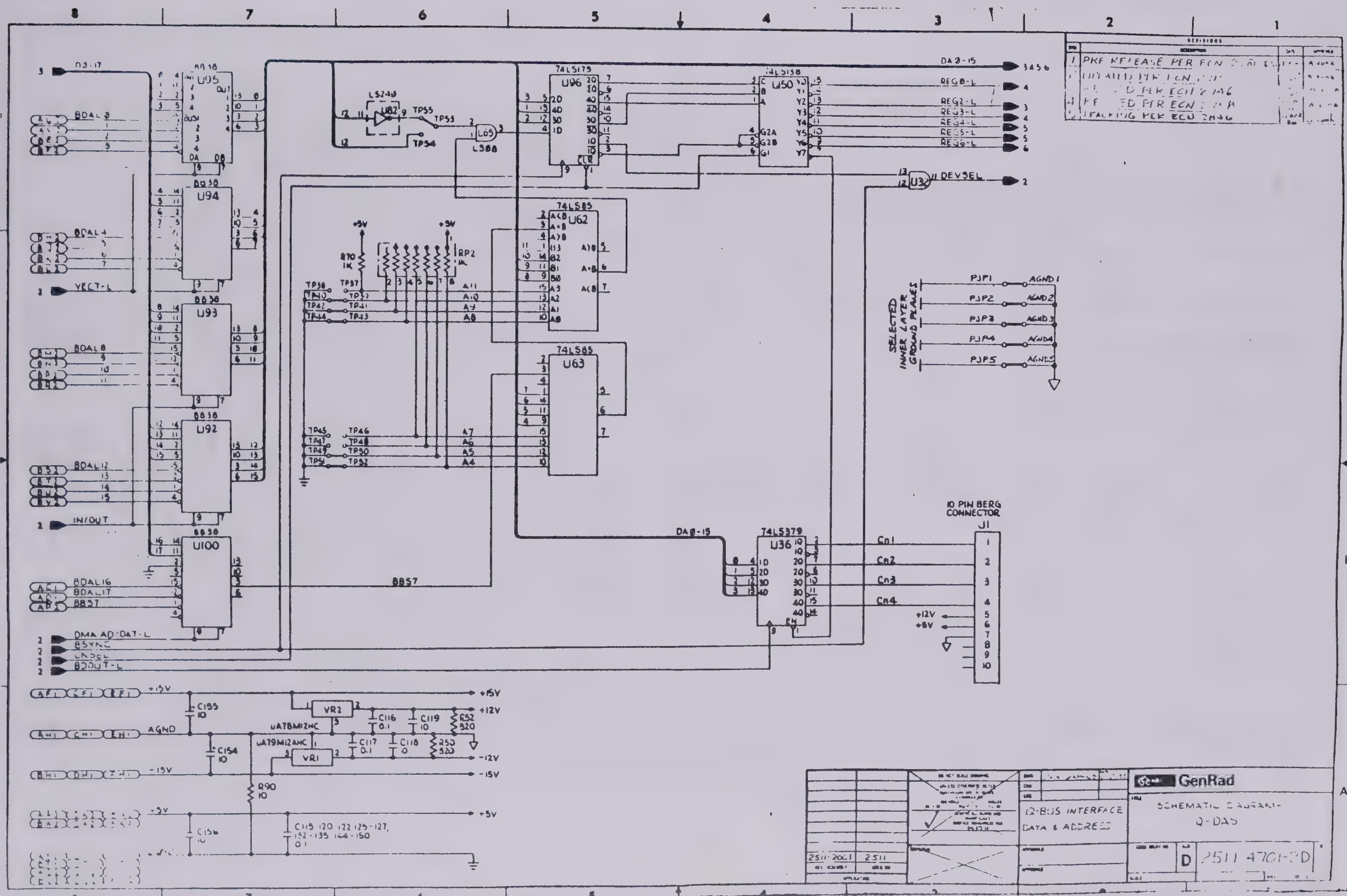
ITEM	PART NUMBER	QTY	NOMENCLATURE

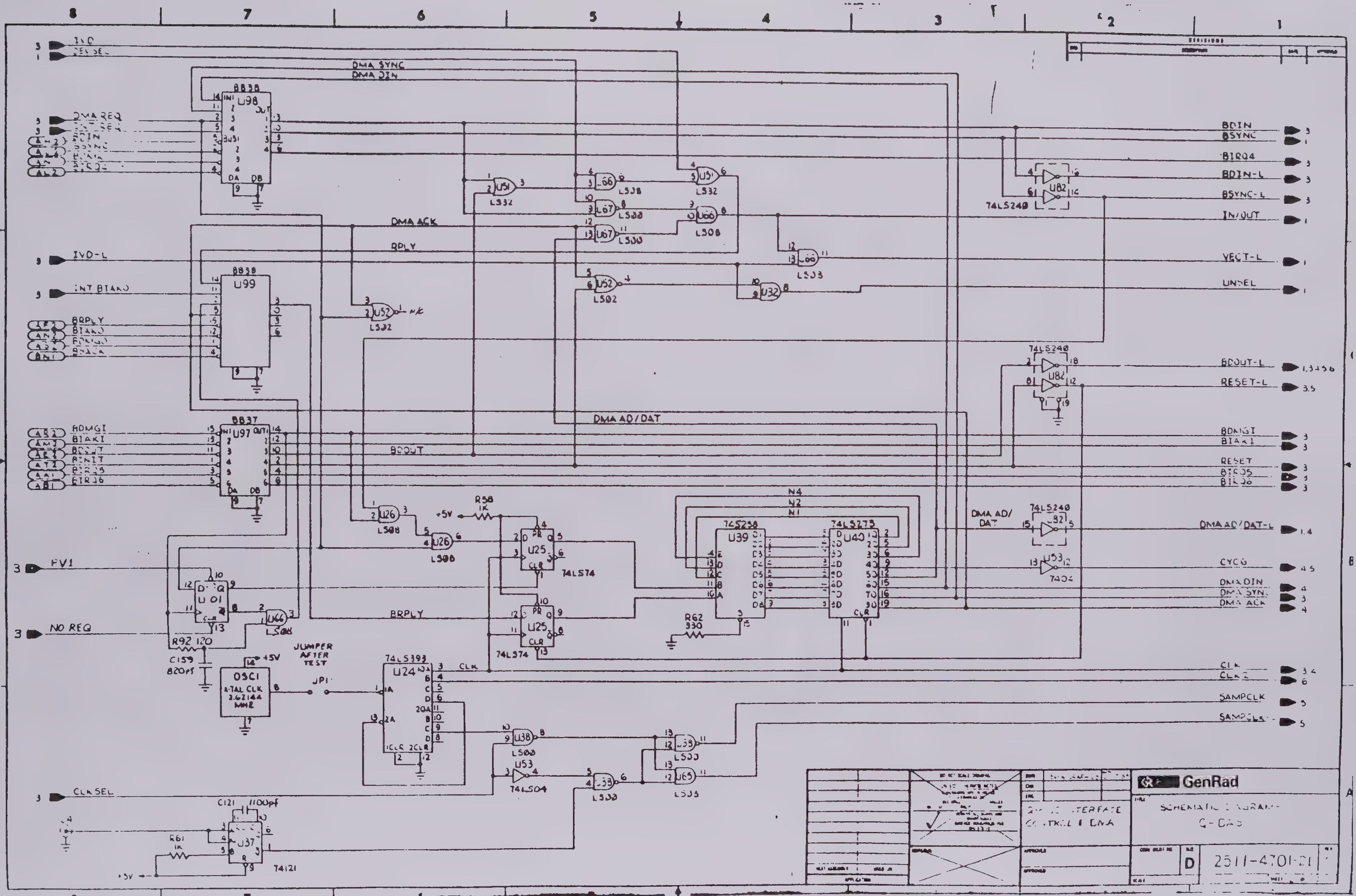
LIST OF MATERIAL

GenRad

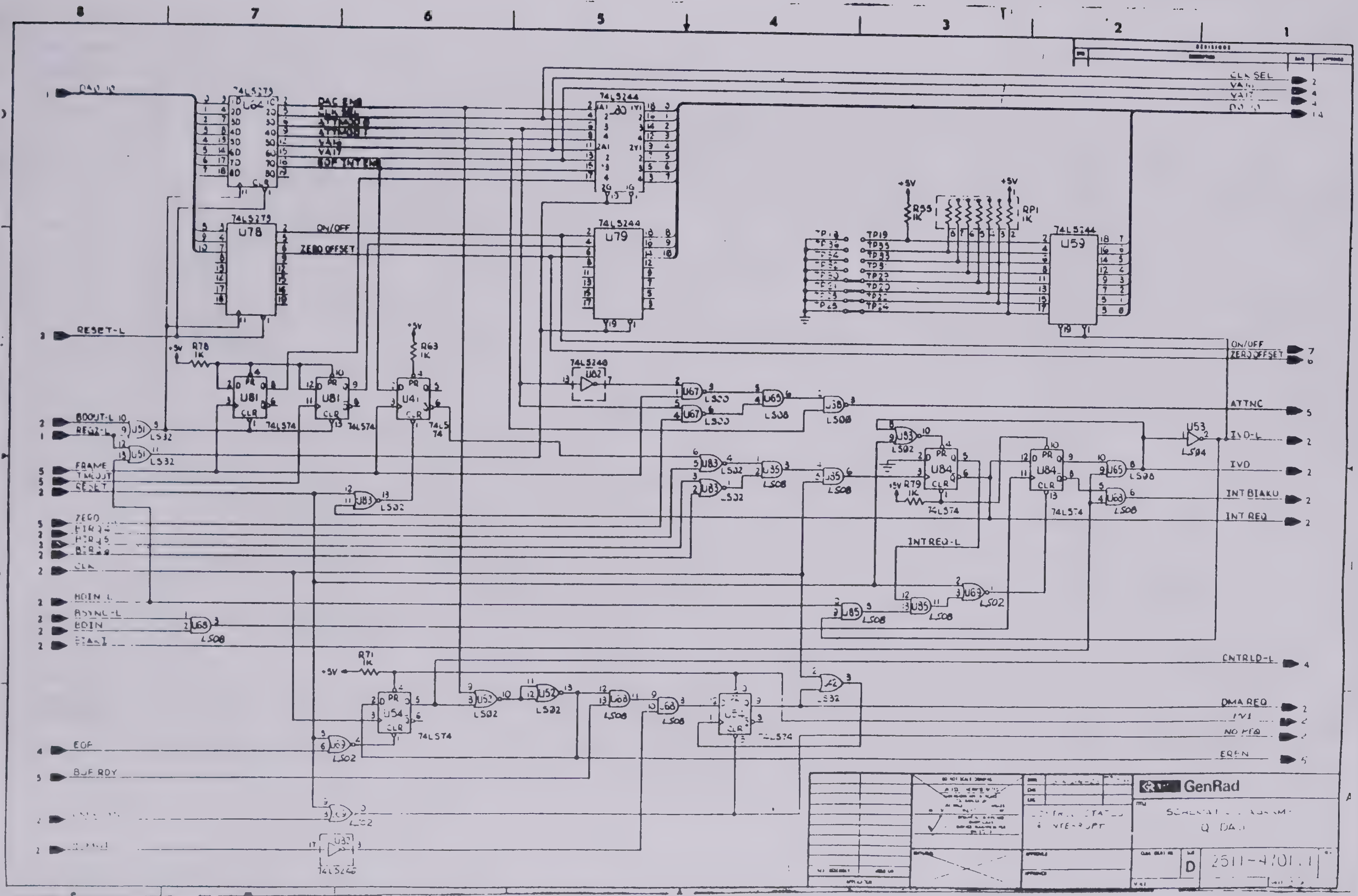
P.C.B ASSEMBLY, Q-1A5

2511-3001 2511

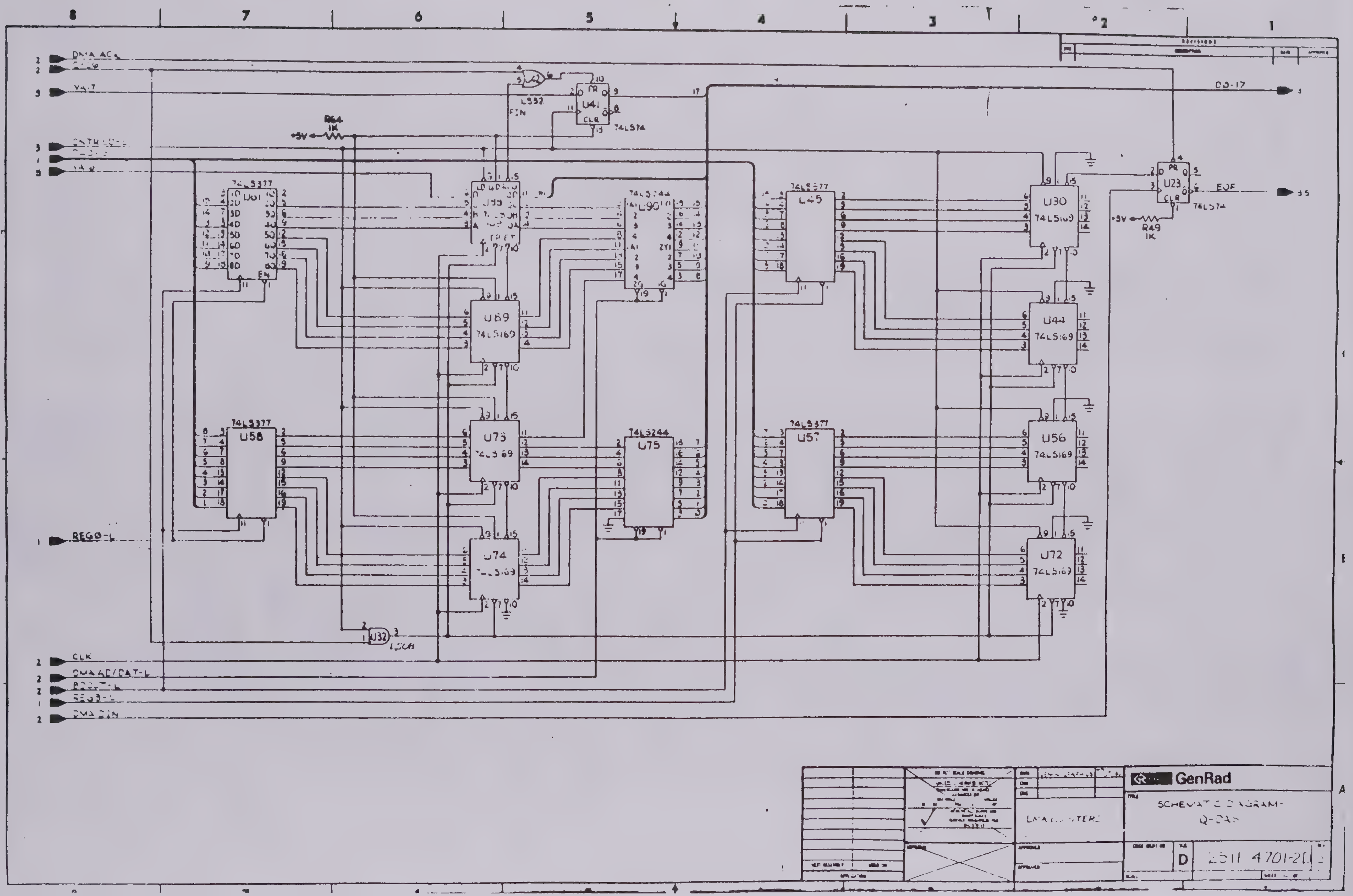

DA0-15
REG0-L
REG2-L
REG3-L
REG4-L
REG5-L
REG6-L
DEVSEL
74LS175
U96
74LS138
U50
74LS85
U62
74LS85
U63
74LS379
U36
U95
U94
U93
U92
U100
LS240
U82
TP55
TP53
TP54
L65
LS08
U32
BDAL0
BDAL4
BDAL8
BDAL12
BDAL16
BDAL17
BBS7
VECT-L
IN/OUT
DMA AD-DAT-L
BSYNC
BDOUT-L
+5V
RP2
R70
1K
A11
A10
A9
A8
A7
A6
A5
A4
PJP1
PJP2
PJP3
PJP4
PJP5
AGND1
AGND2
AGND3
AGND4
AGND5
SELECTED INNER LAYER GROUND PLANES
10 PIN BERG CONNECTOR
J1
Cn1
Cn2
Cn3
Cn4
+12V
+8V
+15V
AGND
-15V
-12V
VR2
VR1
uA78M12HC
uA79M12AHC
C155
C154
C156
C116
C119
C117
C118
R52
R50
R90
C115 120 122 125-127, 132-135 144-150
PRE RELEASE PER ECN
GenRad
SCHEMATIC DIAGRAM-
Q-DAS
Q-BUS INTERFACE
DATA & ADDRESS
D

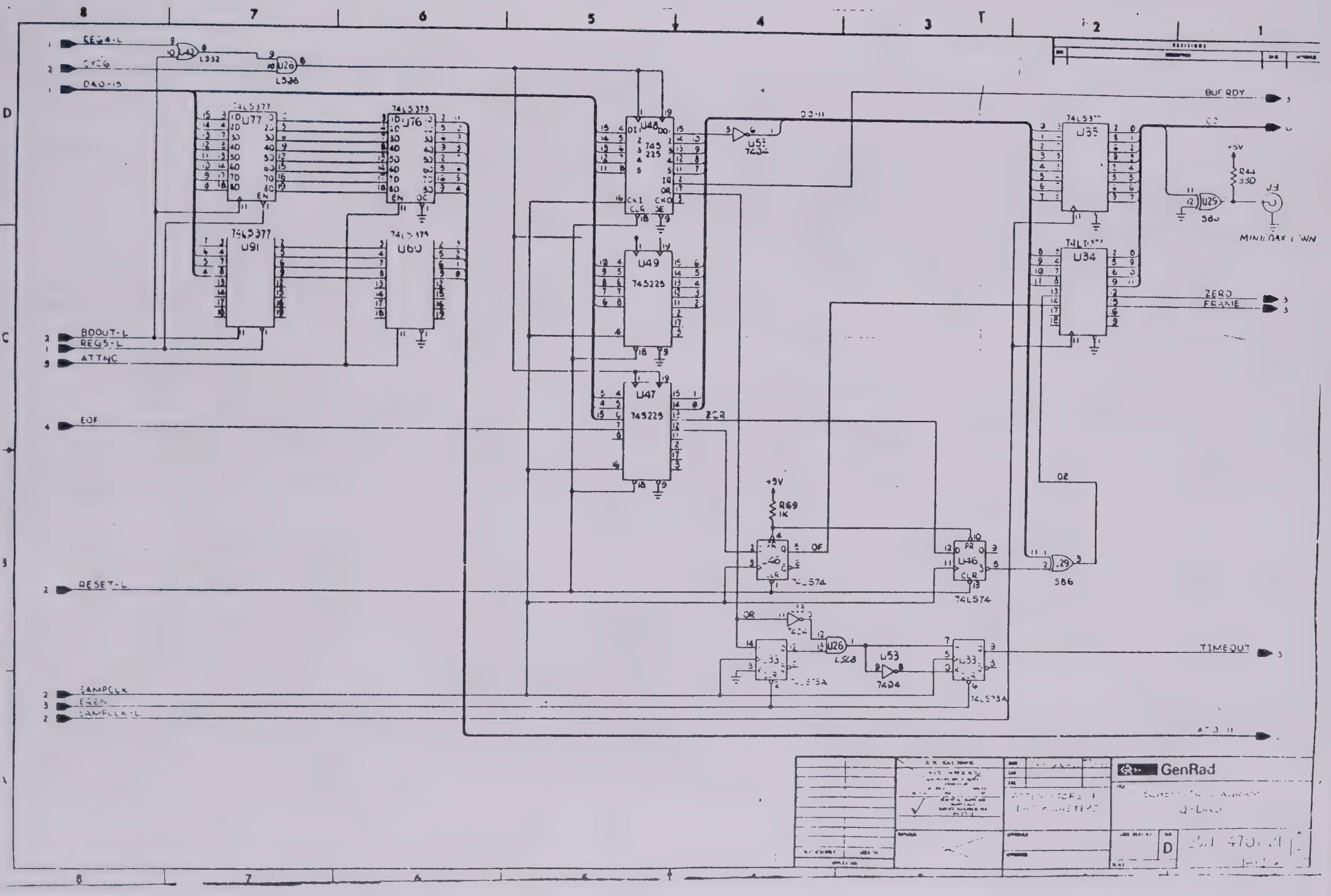


GenRad
SCHEMATIC DIAGRAM
D
2511-4701-21
DMA SYNC
DMA DIN
DMA ACK
BRPLY
DMA AD/DAT
BDOUT
BDIN
BSYNC
BIRQ4
BDIN-L
BSYNC-L
IN/OUT
VECT-L
UNSEL
BDOUT-L
RESET-L
BDMGI
BIAKI
RESET
DMA AD/DAT-L
CYCG
DMA DIN
DMA ACK
SAMPCLK
DMA REQ
IVD-L
INT BIAKO
FV1
NO REQ
CLK SEL
JUMPER AFTER TEST
OSC1
74LS240
74LS74
74LS393
74LS273
74LS04
74121

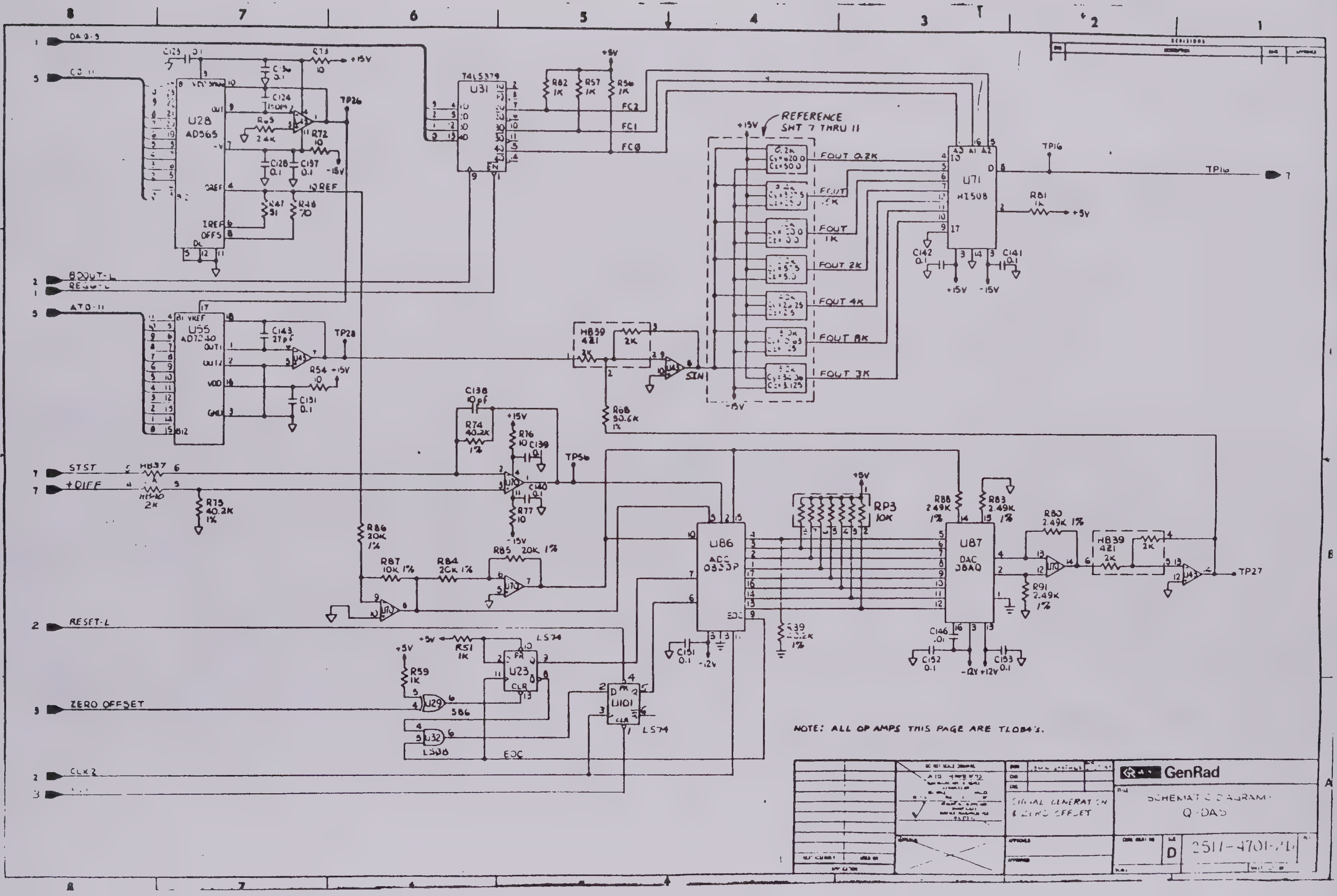


DAC ENB
ON/OFF
ZERO OFFSET
RESET-L
BOOUT-L
REQ2-L
FRAME
RESET
ZERO
CLK
BDIN
EOF
BUF RDY
CLK SEL
ATTNC
IVD-L
IVD
INT BIAKU
INT REQ
INTREQ-L
CNTRLD-L
DMA REQ
NO REQ
EREN
74LS279
74LS244
74LS74
74LS240
GenRad
D

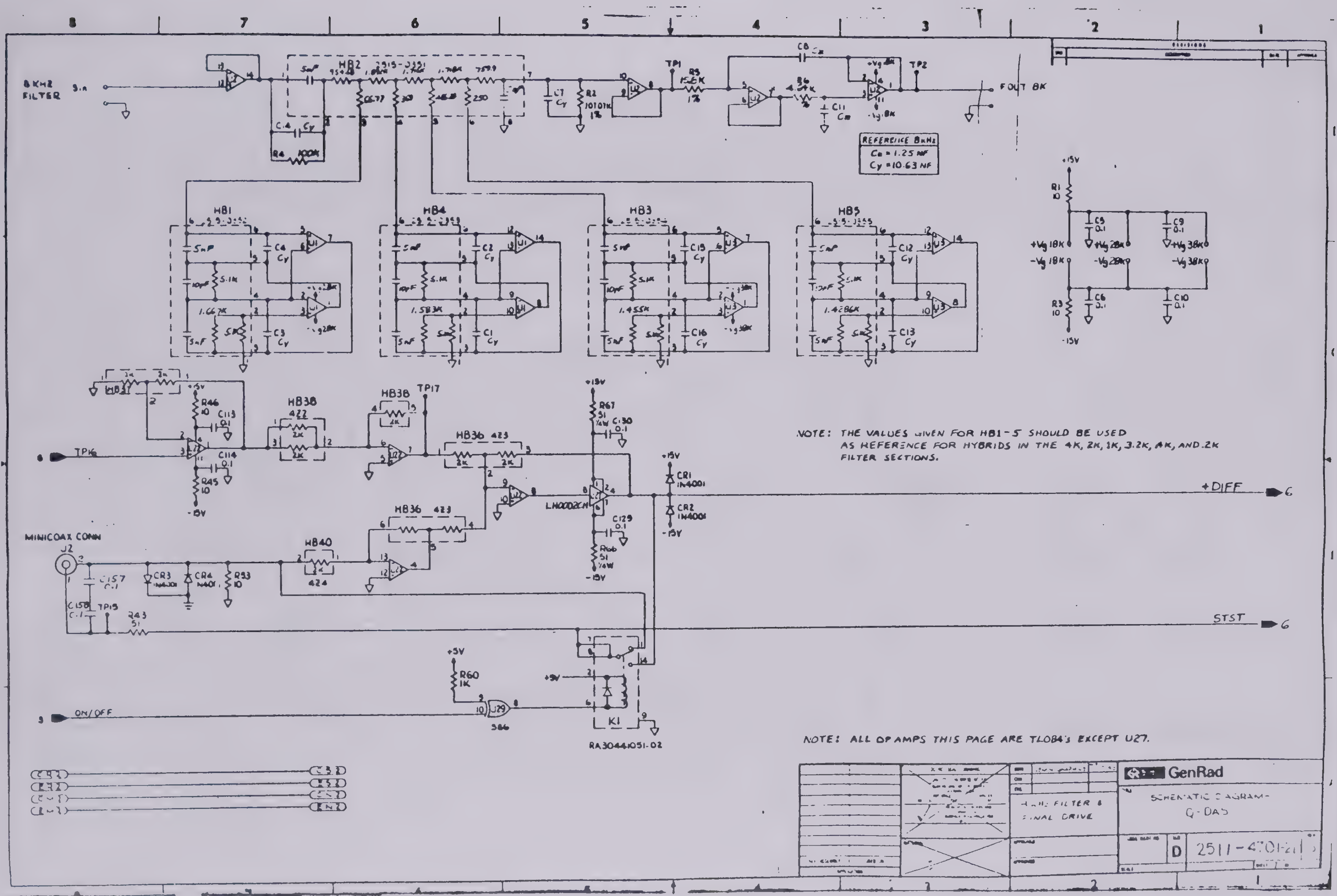

DMA ACK
VA 7
REGO-L
CLK
DMA AC/DAT-L
DMA DIN
DO-17
EOF
R64 1K
+5V
R49 1K
U41 74LS74
U23 74LS74
U30 74LS169
U44 74LS169
U56 74LS169
U72 74LS169
U69 74LS169
U73 74LS169
U74 74LS169
U45 74LS377
U57 74LS377
U58 74LS377
U61 74LS377
U90 74LS244
U75 74LS244
U32
LS32
GenRad
SCHEMATIC DIAGRAM
D

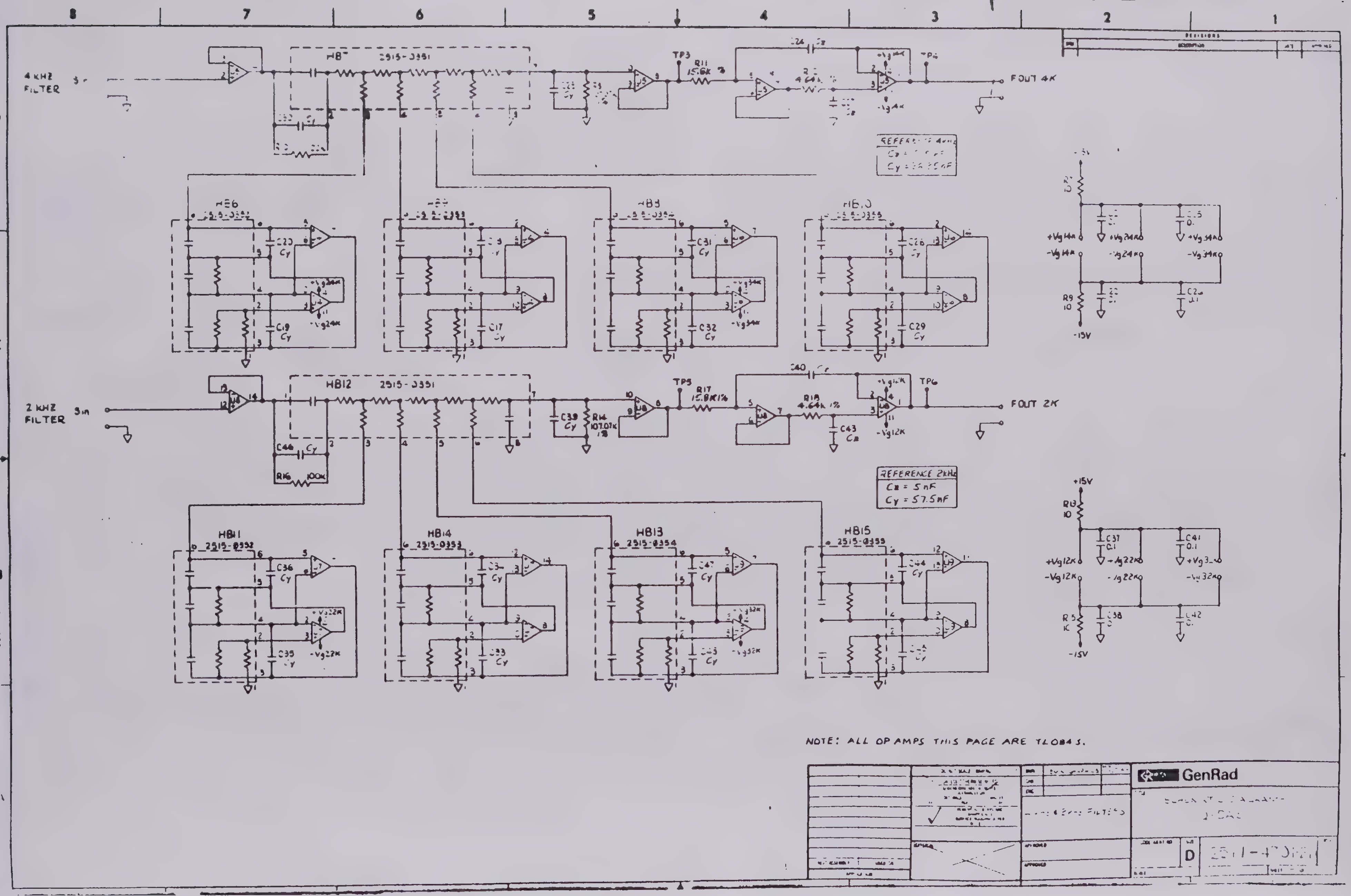


REG4-L
SYC6
DAO-15
BOOUT-L
REGS-L
ATTNC
EOF
RESET-L
SAMPCLK
EGEN
SAMPCLK-L
74LS377
U77
74LS373
U76
74LS377
U91
U60
U48
74S225
U49
74S225
U47
74S225
U51
7404
U35
U34
U29
586
+5V
R44
330
J3
BUF RDY
ZERO
FRAME
TIMEOUT
R69
1K
74LS74
U46
U26
LS08
U53
7404
U33
74LS73A
GenRad
D

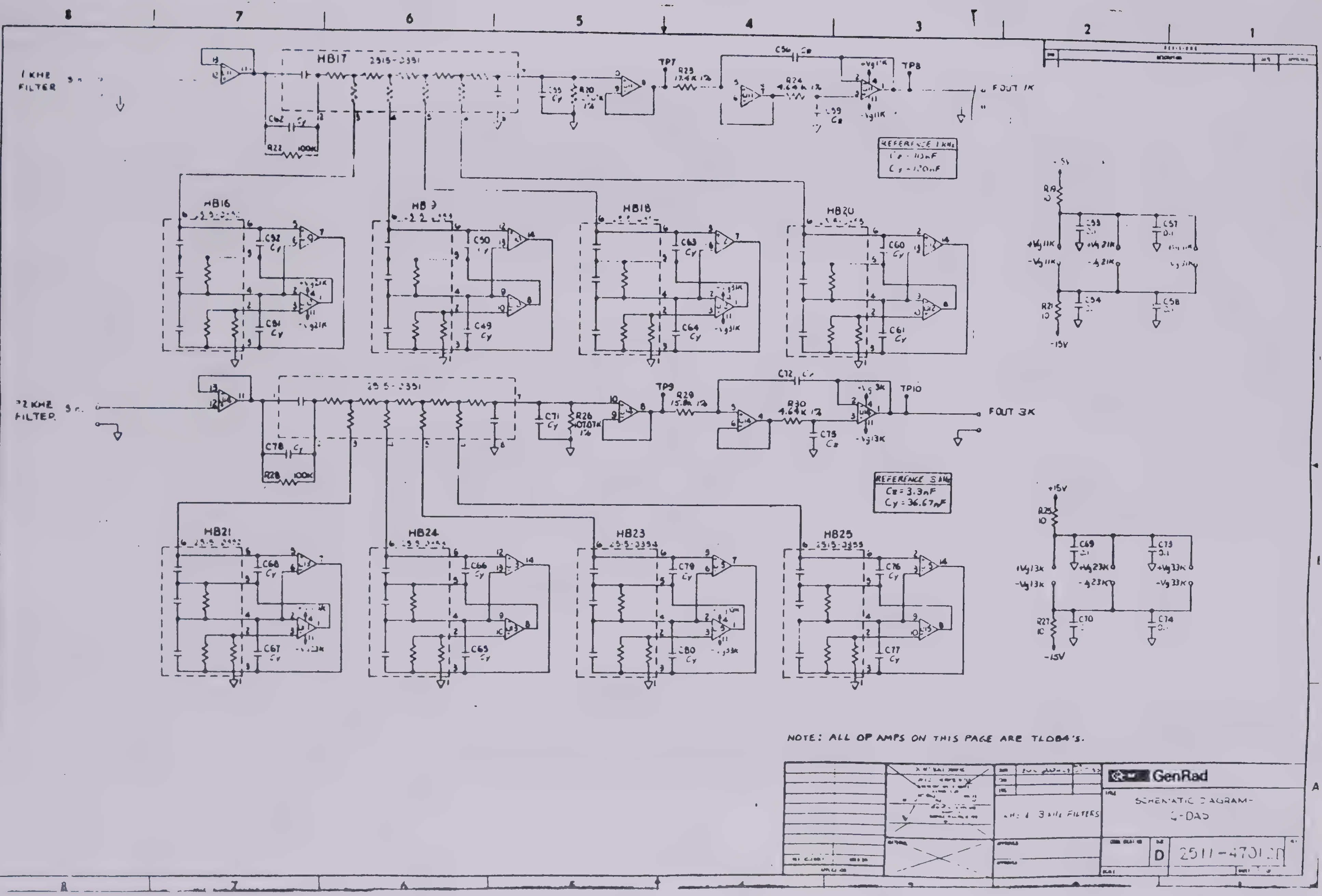


U28
AD565
U55
AD7240
U31
74LS379
U71
HI508
U86
ADC
0820P
U87
DAC
08AQ
U23
U101
LS74
REFERENCE
SHT 7 THRU 11
FOUT 0.2K
FOUT 1K
FOUT 2K
FOUT 4K
FOUT 8K
FOUT 3K
FC2
FC1
FC0
SIN1
TP16
TP26
TP28
TP56
TP27
STST
+DIFF
RESET-L
ZERO OFFSET
EOC
NOTE: ALL OP AMPS THIS PAGE ARE TL084'S.
GenRad
SIGNAL GENERATION
& ZERO OFFSET
SCHEMATIC DIAGRAM
Q-DAS
D


8KHZ FILTER
HB2
HB1
HB4
HB3
HB5
TP1
TP2
FOUT 8K
REFERENCE 8kHz
Cx = 1.25 NF
Cy = 10.63 NF
HB38
HB36 423
HB40
TP16
TP17
MINICOAX CONN
J2
+DIFF
STST
ON/OFF
K1
RA30441051-02
LH0002CN
NOTE: THE VALUES GIVEN FOR HB1-5 SHOULD BE USED AS REFERENCE FOR HYBRIDS IN THE 4K, 2K, 1K, 3.2K, AK, AND .2K FILTER SECTIONS.
NOTE: ALL OP AMPS THIS PAGE ARE TL084's EXCEPT U27.
GenRad
SCHEMATIC DIAGRAM - Q-DAS
D
2511-4701-21



4 KHZ FILTER
2 KHZ FILTER
HB7 2515-3351
HB12 2515-3351
HB6
HB11 2515-0352
HB14 2515-0353
HB13 2515-0354
HB15 2515-0355
TP3
TP4
TP5
TP6
R11 15.6K
R17 15.8K 1%
R18 4.64K 1%
R14 107.0K 1%
R16 100K
FOUT 4K
FOUT 2K
REFERENCE 2kHz
Cx = 5 nF
Cy = 57.5 nF
+15V
-15V
R9 10
R13 10
+Vg12K
-Vg12K
+Vg14K
-Vg14K
-Vg24K
-Vg22K
-Vg34K
-Vg32K
NOTE: ALL OP AMPS THIS PAGE ARE TL084S.
GenRad
D



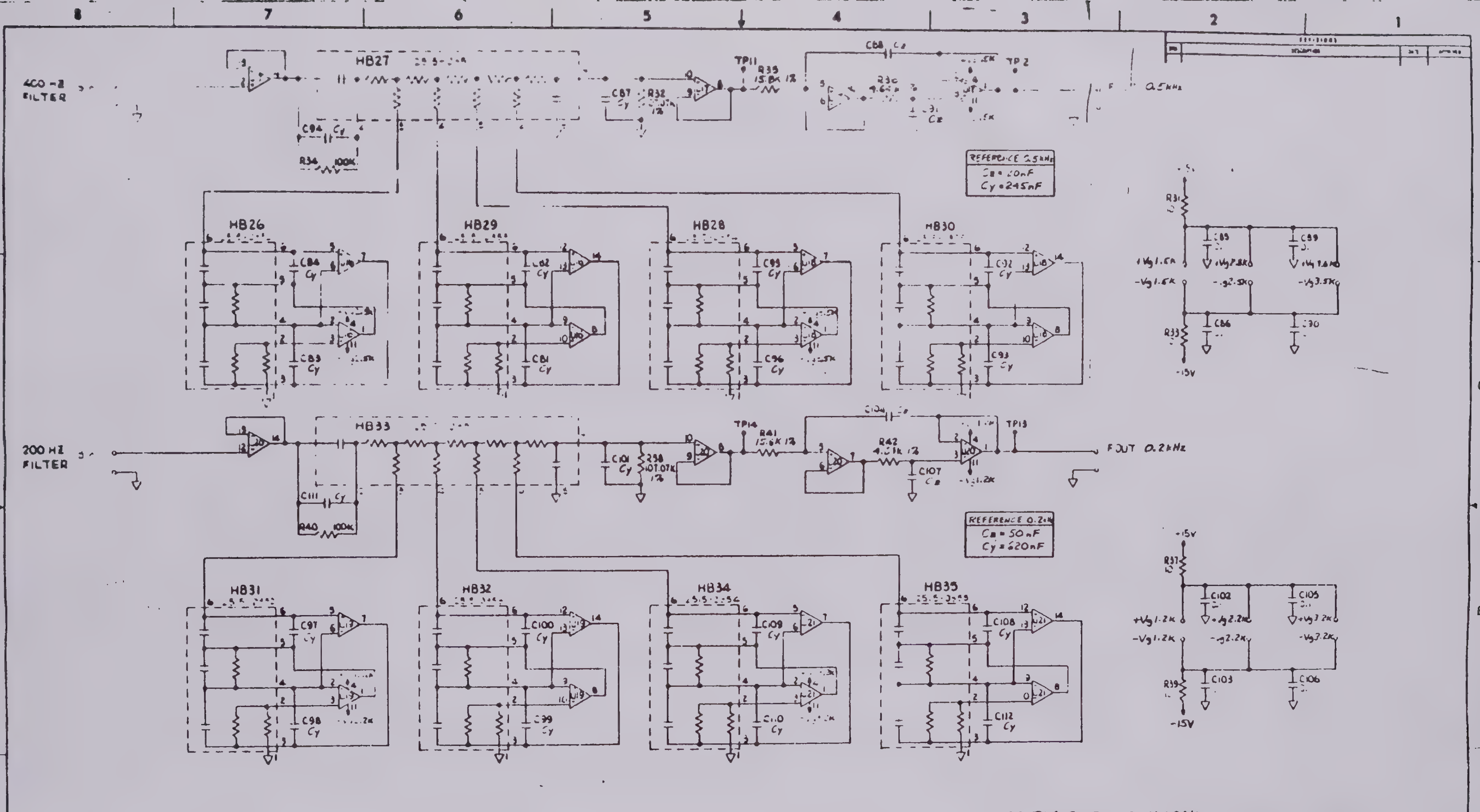
NOTE: ALL OP AMPS ON THIS PAGE ARE TL084'S.

GenRad

SCHEMATIC DIAGRAM-
G-DAS

1 KHZ & 3 KHZ FILTERS

D 2511-4701



NOTE: ALL OP AMPS THIS PAGE ARE TL084's.

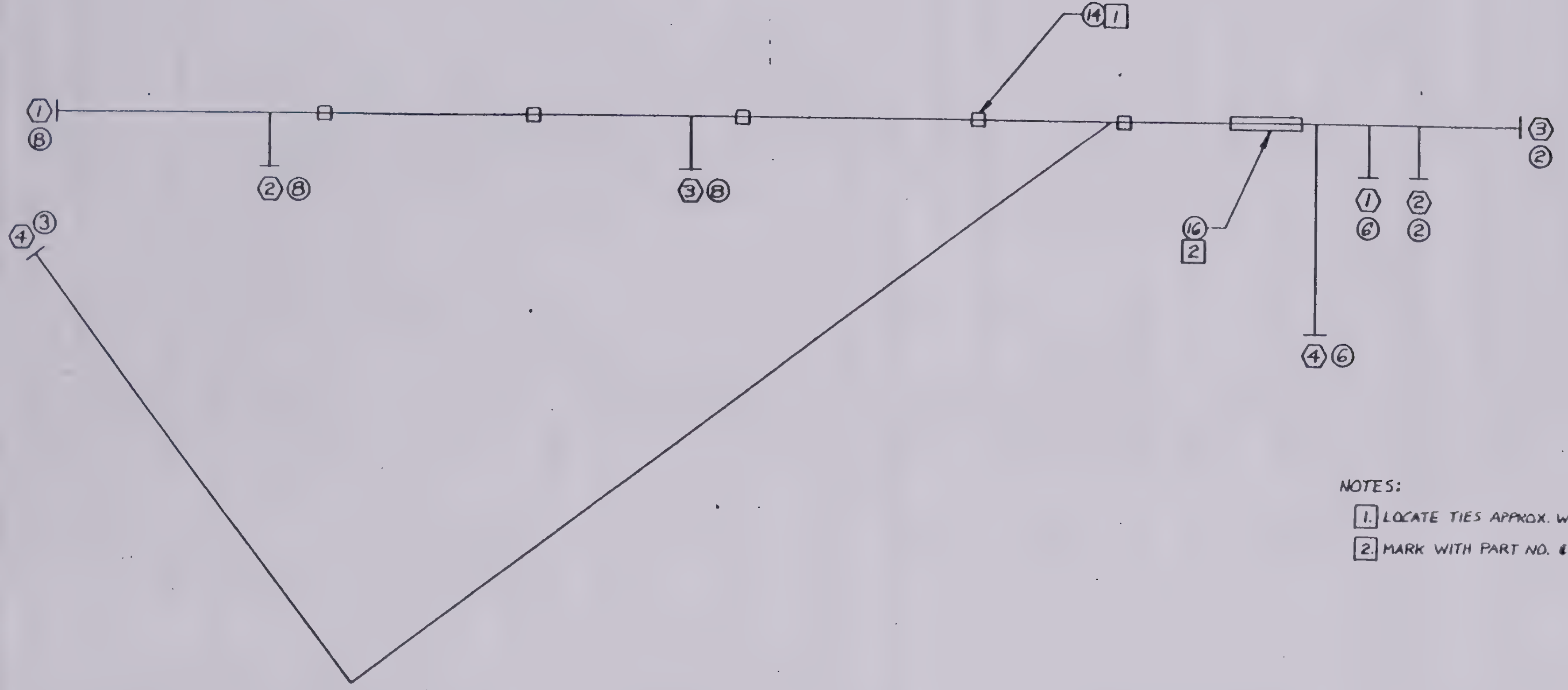
GenRad

SCHEMATIC DIAGRAM Q-DAS

0.5 kHz & 0.2 kHz FILTERS

D

1	PRERELEASE PER ECN 2708	
2	RELEASE PER ECN 2793	11/7/83



NOTES:

1. LOCATE TIES APPROX. WHERE SHOWN
2. MARK WITH PART NO. & REVISION.

GenRad

CABLE ASSY,
Q-DAS I/O SIGNALS

D 2511-2023-1D 2

2511-3001 2511

GenRad

		DATE		
DR	L. WITZEL	4/20/83		
CHK				
APPD	KHO	5-16-83		
APPD			2511	
APPD			USED ON	NEXT ASSY

DRAWING NO	2511-2023-4D	2
	SHEET 1 OF 2	REV
TITLE	Q-DAS I/O SIGNALS, WIRELIST	

SYM	REVISION DESCRIPTION	DATE	APPD	SYM	REVISION DESCRIPTION	DATE	APPD
1	PRERELEASE PER ECN 2708	27APR83	A. VORA				
2	TRACKING PER ECN 2793	15NOV83	A. VORA				

RECORD OF REVISION OF EACH SHEET

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
1	1																														
2	1																														

0000-00'5 REV 1

GenRad

TITLE
WIRELIST, Q-DAS I/O SIGNALS

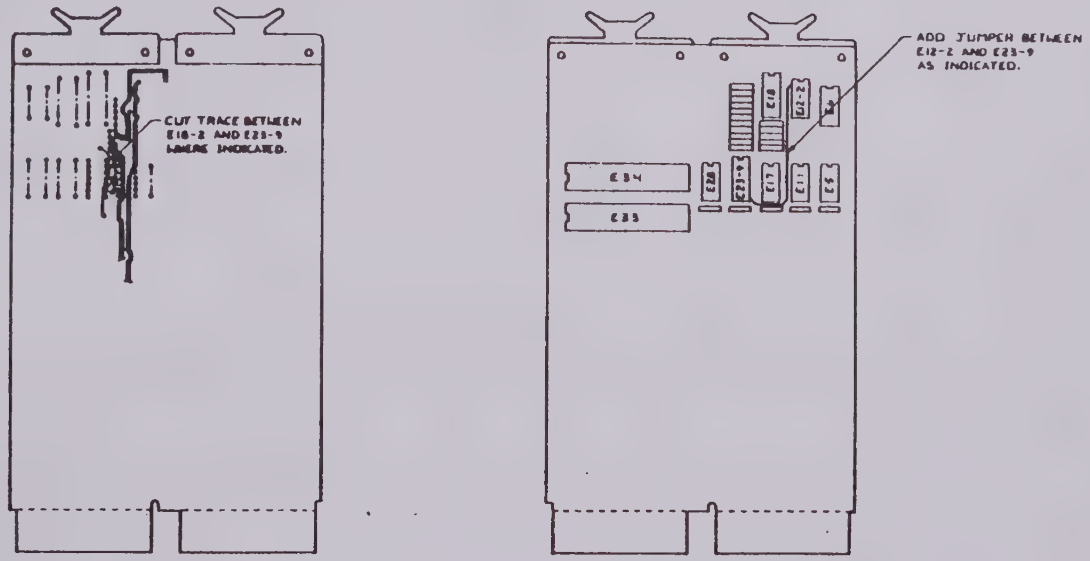
DRAWING NO.
2511-2023-4D

rev 1

CABLE WIRE LIST

wire no.	FROM CONN	FROM PIN	TO CONN	TO PIN	FUNCTION	SIZE	COLOR
1	QDAS BNC	J2	REAR PNL BNC TEE		DRIVE (REAR PANEL)	RG 174/U	BLACK
2	QDAS BNC	J3	REAR PNL BNC		UNATT DRIVE	RG 174/U	BLACK
3	QDAS BNC	J4	REAR PNL BNC		EXT CLOCK	RG 174/U	BLACK
4	FRONT PNL BNC		REAR PNL BNC TEE		DRIVE (FRONT PANEL)	RG 174/U	BLACK

REV	DESCRIPTION
1	RELEASED
2	TRACKING PER ECN 2482
3	TRACKING PER ECN 2594



SOLDER SIDE

COMPONENT SIDE

GenRad

PCB ASSY, LSI 11/2 MODIFIED

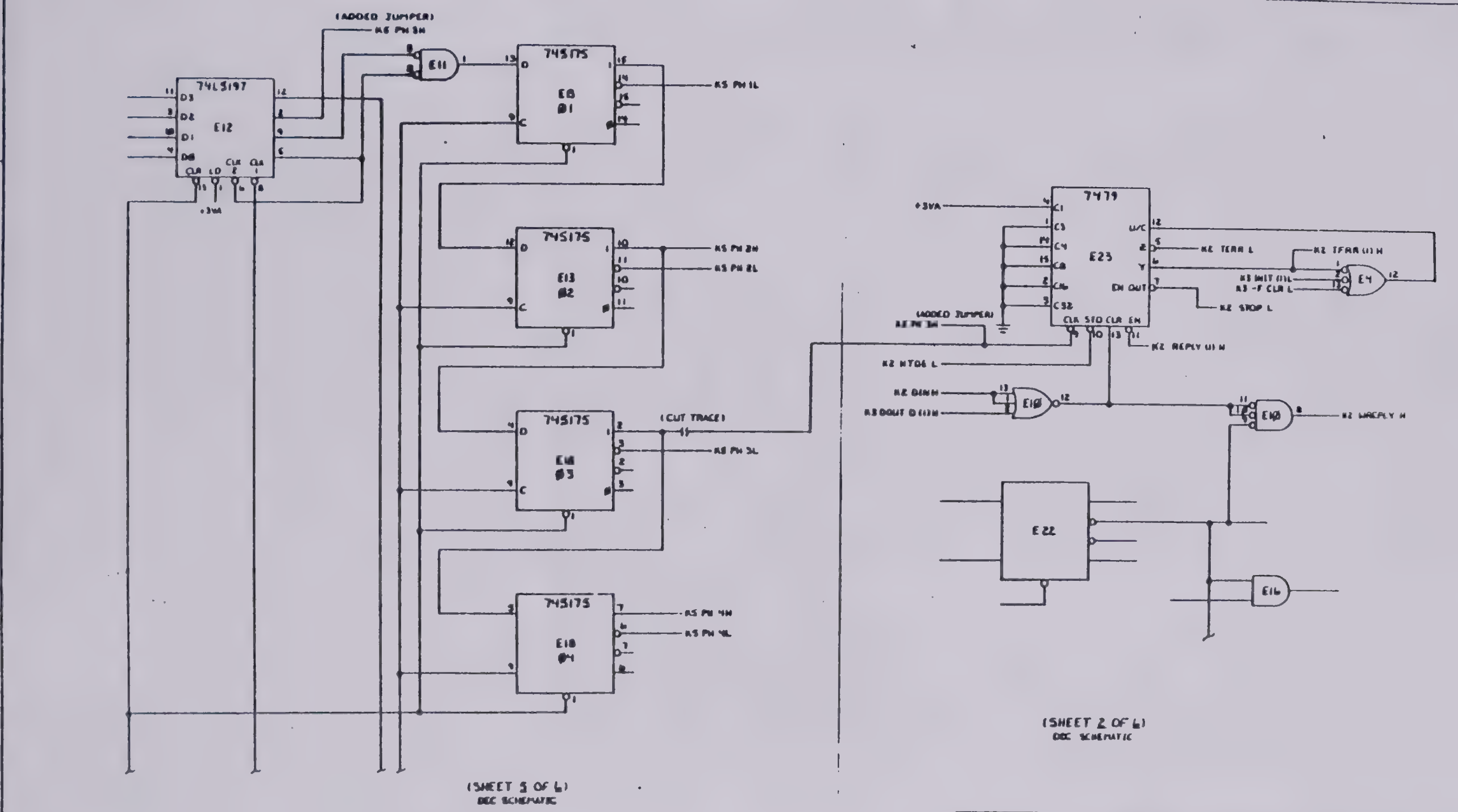
DRN C. ZIEGLER

2510-3001 | 2510

D | 2510-2020-1D | 3

SCALE FULL

1	RELEASED		
2	TRACKING PER ECN 2482		
3	TRACKING PER ECN 2594		



C. ZIEGLER

GenRad

SCHEMATIC, REWORK, LSI 11/2 MODIFIED

2510 2020 | 2510

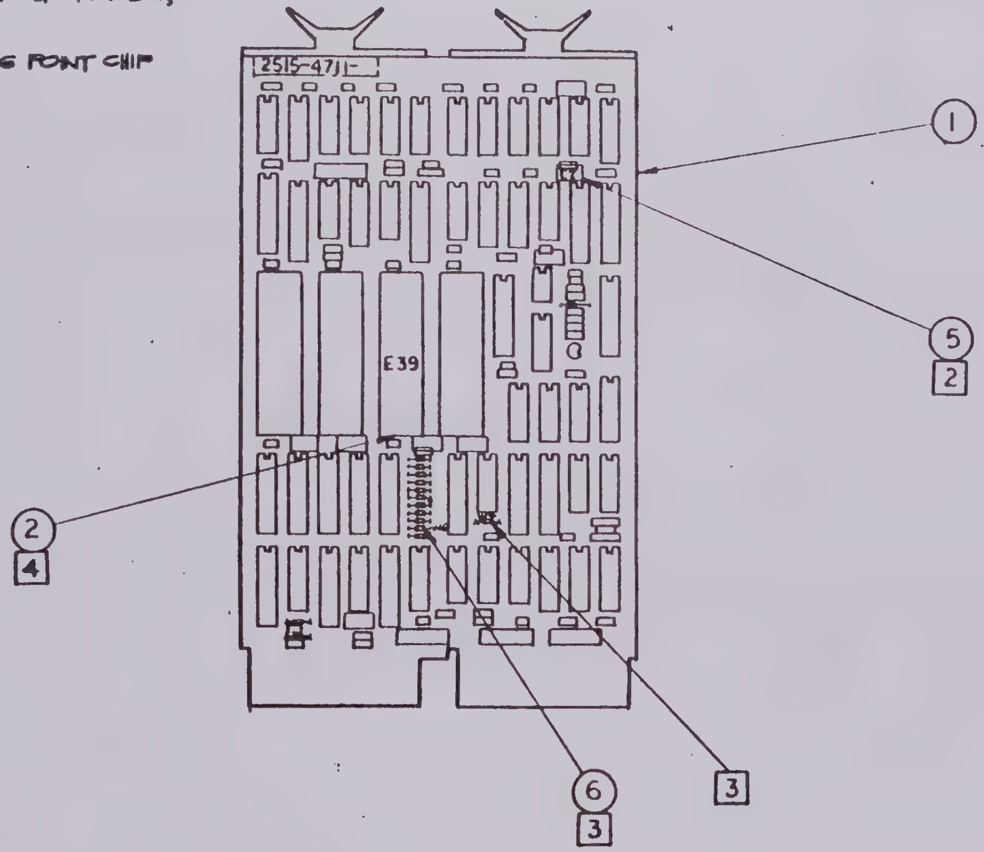
D 2510-2020

NOTES:

1. MARK APPLICABLE REVISION LEVEL USING .12 HIGH CHARACTERS, COLOR, EPOXY INK.
2. REPLACE C2 WITH 4383-2020 TO EXTEND TIMEOUT TO 24 MICROSECONDS.
3. REMOVE JUMPER W4 TO ENABLE EVENT CLOCK.
   ADD JUMPER W6 FOR POWER-UP MODE 2, EXECUTE BOOT.
4. INSTALL 1765-0065 FLOATING POINT CHIP AT LOCATION E39.

SYM	DESCRIPTION	DATE	APPROVED
1	RELEASED PER ECN 2752		A. VORA

COMPONENT SIDE VIEW



NEXT ASSEMBLY	USED ON
2515-9715	2515

APPLICATION

DO NOT SCALE DRAWING

MATERIAL: SEE LM 2515-4711-1L

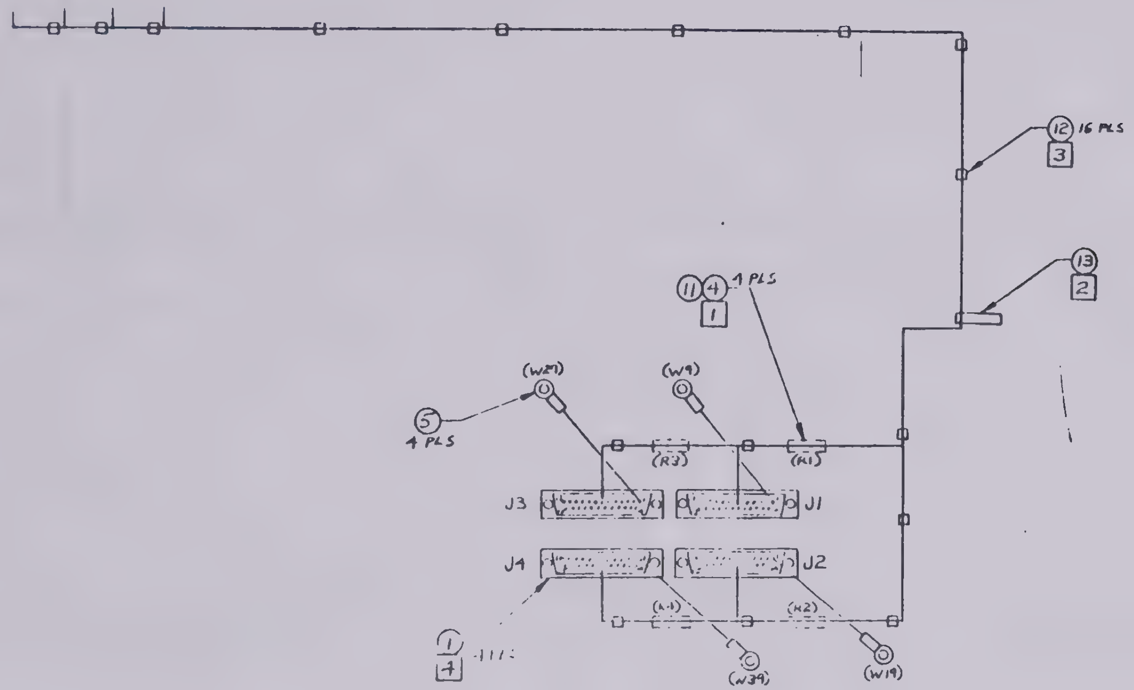
DRN: G. ENRILE 5-17-83

GenRad Time/Data Division

TITLE: LSI1/23 W/FLOATING POINT & MOD ASSY

SIZE: C — 2515-4711-1D — REV 1

SCALE: NONE — SHEET 1 OF 1



1. TRIM LEADS OF R1-R4 TO WITHIN .25 IN. OF BODY BOTH ENDS. LOCATE APPROX. WHERE SHOWN & SOLDER WIRES TO LEADS. COVER BODY & SPLICES FULLY WITH TUBING.
2. MARK WITH CABLE NO. & CURRENT REV IN .12 HIGH CHARACTERS USING EPOXY INK OF A CONTRASTING COLOR.
3. LOCATE CABLE TIES APPROX WHERE SHOWN.
4. MARK CONNECTORS WITH APPROPRIATE DESIGNATORS IN .12 HIGH CHARACTORS USING EPOXY INK OF A CONTRASTING COLOR.
5. REMOVE ORIGINAL PIN NO. MARKINGS ON ITEM 2 BY LIGHTLY SCRAPING & IDENTIFY PIN 1 IN LOCATION SHOWN BY APPLYING AN EPOXY INK DOT.

GenRad

CABLE A...Y,

RS-232 INTERFACE

D

GenRad

DR	L. WITZEL	DATE 5-5-83		
CHK				
APPD				
APPD			2511	2511-9401
APPD			USED ON	NEXT ASSY

DRAWING NO 2511-2030-4D — REV 2

SHEET 1 OF 3

TITLE
WIRELIST, CABLE ASSEMBLY, RS-232 INTERFACE

SYM	REVISION DESCRIPTION	DATE	APPD	SYM	REVISION DESCRIPTION	DATE	APPD
1	PRERELEASE PER PRB 3205						
2	TRACKING FOR ECN 2870	[illegible]	[illegible]				

RECORD OF REVISION OF EACH SHEET

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
1	1	1																													
2	1	1																													

0000-5015 REV I

GenRad

TITLE CABLE ASSEMBLY, RS-232 INTERFACE

sht 2 of 3

DRAWING NO. 2511-2030-4D

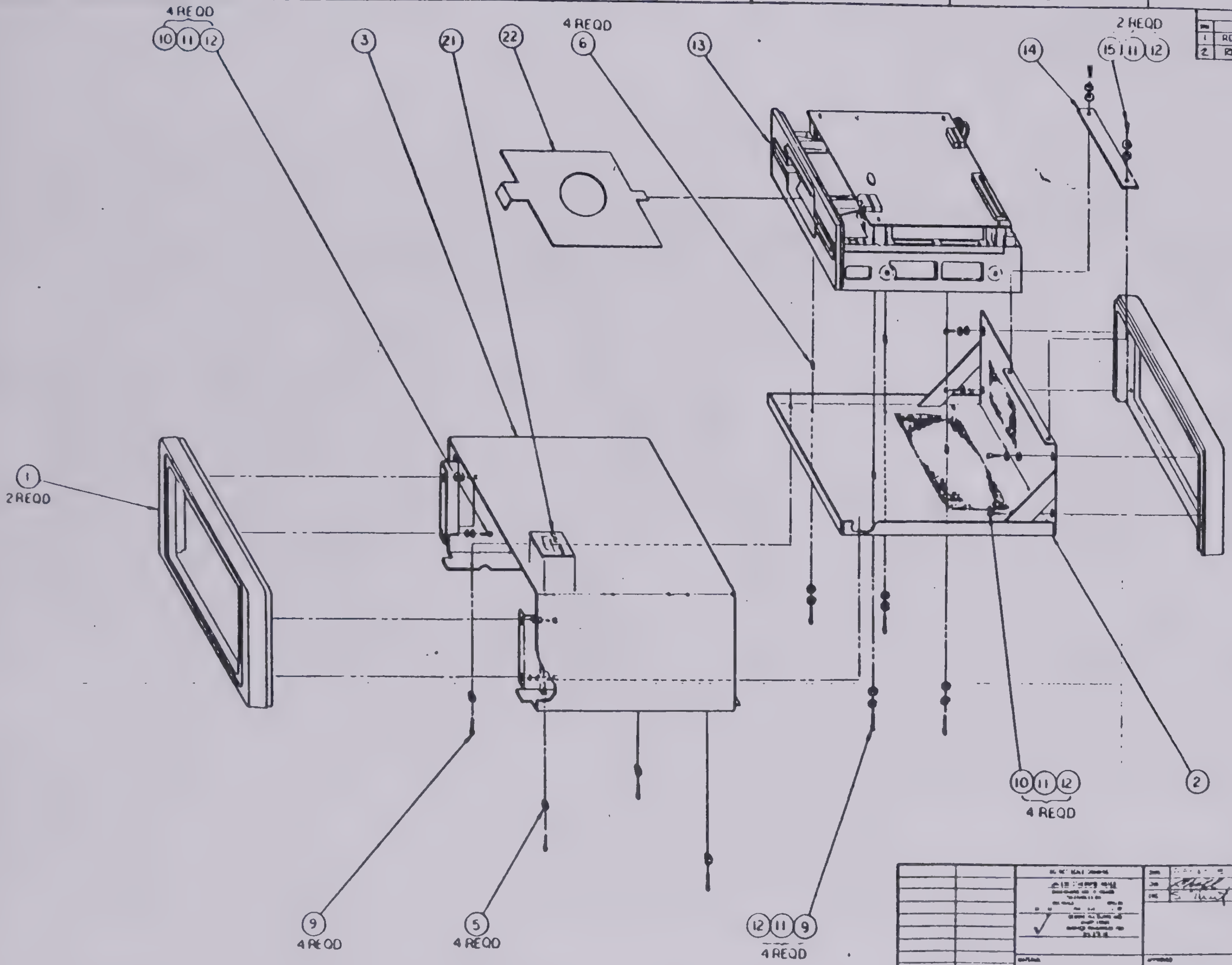
rev 1

wire no.	FROM CONN	FROM PIN	TO CONN	TO PIN	CABLE WIRE LIST FUNCTION	SIZE	COLOR
W1	P1	3	J1	2	TWISTED PAIR	22	ORN
W2	P1	2	J1	7			BLK
W3	P1	8	J1	3	TWISTED PAIR		BRN
W4	P1	9	J1	7			BLK
W5	P1	5	P1	7			WHT
W6	P1	10	R1	SEE ASS'Y			YEL
W7	R1	SEE ASS'Y	J1	20			YEL
W8	J1	4	J1	6			WHT
W9	J1	1	ITEM 5				BLK
W10	-	-	-	-			-
W11	P2	3	J2	2	TWISTED PAIR		ORN
W12	P2	2	J2	7			BLK
W13	P2	8	J2	3	TWISTED PAIR		BRN
W14	P2	9	J2	7			BLK
W15	P2	5	P2	7			WHT
W16	P2	10	R2	SEE ASS'Y			YEL
W17	R2	SEE ASS'Y	J2	20			YEL
W18	J2	4	J2	6			WHT
W19	J2	1	ITEM 5			22	BLK
W20	-	-	-	-		-	-

GenRad	TITLE CABLE ASSEMBLY, RS-232 INTERFACE	sht 3 of 3
	DRAWING NO. 2511-2030-4D	rev 1

wire	FROM		TO		CABLE WIRE LIST		
no.	CONN	PIN	CONN	PIN	FUNCTION	SIZE	COLOR
W21	P3	3	J3	2	TWISTED PAIR	22	ORN
W22	P3	2	J3	7			BLK
W23	P3	8	J3	3	TWISTED PAIR		BRN
W24	P3	9	J3	7			BLK
W25	P3	5	P3	7			WHT
W26	P3	10	R3	SEE ASSY			YEL
W27	R3	SEE ASSY	J3	20			YEL
W28	J3	4	J3	6			WHT
W29	J3	1	ITEM 5				BLK
W30	-	-	-	-			-
W31	P4	3	J4	2	TWISTED PAIR		ORN
W32	P4	2	J4	7			BLK
W33	P4	8	J4	3	TWISTED PAIR		BRN
W34	P4	9	J4	7			BLK
W35	P4	5	P4	7			WHT
W36	P4	10	R4	SEE ASSY			YEL
W37	R4	SEE ASSY	J4	20			YEL
W38	J4	4	J4	6			WHT
W39	J4	1	ITEM 5			22	BLK

1	RELEASED PER PRB 3206		
2	REVISED PER ECN 2776		



NOTE.
1. SINGLE FLOPPY DRIVE ASSY SHOWN THIS SHEET. SECOND ASSY IDENTICAL.
2. SEE SHT 2 FOR CABLE ASSY INSTALLATION PRIOR TO CHASSIS ASSY.
3 CENTER LABELS WHERE SHOWN.

GenRad

MINIFLOPPY, ADD ON

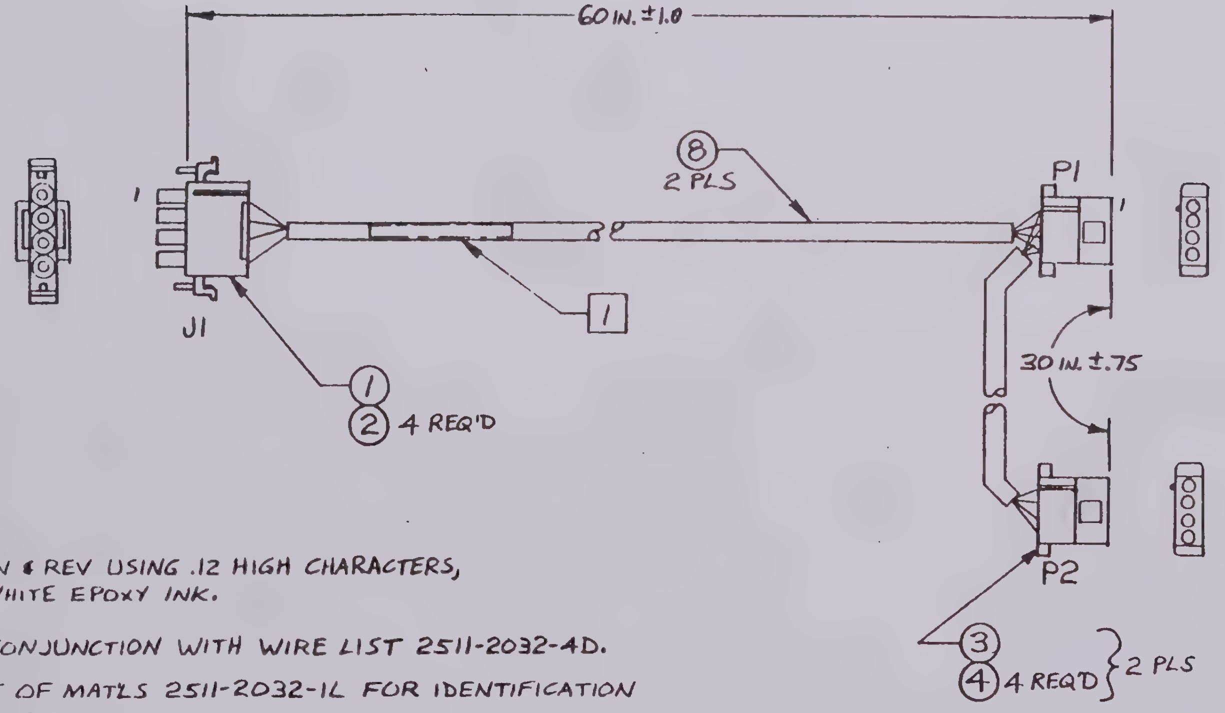
D 2511-9402-1D

2511

SEE LM 2511-9402-1L

NOTES:

REVISIONS			
SYM	DESCRIPTION	DA.	APPROVED
1	RELEASED PER PRB 3206	7 JUL 83	G COOK
2	RELEASED PER ECN 2775	16 OCT 83	A. VORA



NOTES:

1. MARK P/N & REV USING .12 HIGH CHARACTERS, COLOR, WHITE EPOXY INK.
2. USE IN CONJUNCTION WITH WIRE LIST 2511-2032-4D.
3. USE LIST OF MAT'LS 2511-2032-1L FOR IDENTIFICATION OF ALL PARTS.

2511-9402	2511
NEXT ASSEMBLY	USED ON
APPLICATION	

DO NOT SCALE DRAWING
UNLESS OTHERWISE NOTED
DIMENSIONS ARE IN INCHES
TOLERANCES ON
DECIMALS .XX ± .03 .XXX ± .010 ANGLES ±0°30'
REMOVE ALL BURRS AND SHARP EDGES

MATERIAL

DWN 7-28-83
CHK
ENG
APPROVED MFG ENG 7/11/83
APPROVED

GenRad Time/Data Division

TITLE CABLE ASSY, ADD ON MINI FLOPPY PWR

CODE IDENT NO | SIZE C | 2511-2032-1D | REV 2

SCALE FULL | SHEET 1 OF 1

GenRad

DR	[illegible]	DATE 7-7-83			DRAWING NO 2511-2032-4D
CHK	G Crait	7-8-83			REV 2
APPD					SHEET 1 OF 2
APPD			2511	2511-9402	TITLE WIRE LIST, ADD ON MINI FLOPPY
APPD			USED ON	NEXT ASSY	

SYM	REVISION DESCRIPTION	DATE	APPD	SYM	REVISION DESCRIPTION	DATE	APPD
1	RELEASED PER PRB #3206	7 JUL 83	G Crait				
2	RELEASED PER ECN 2775	16 OCT 83	A. Vora				

RECORD OF REVISION OF EACH SHEET

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
1	1																														
2	2																														

0000-0015 REV 1

GenRad

TITLE WIRE LIST, ADD ON MINI FLOPPY — sht 2 of 2

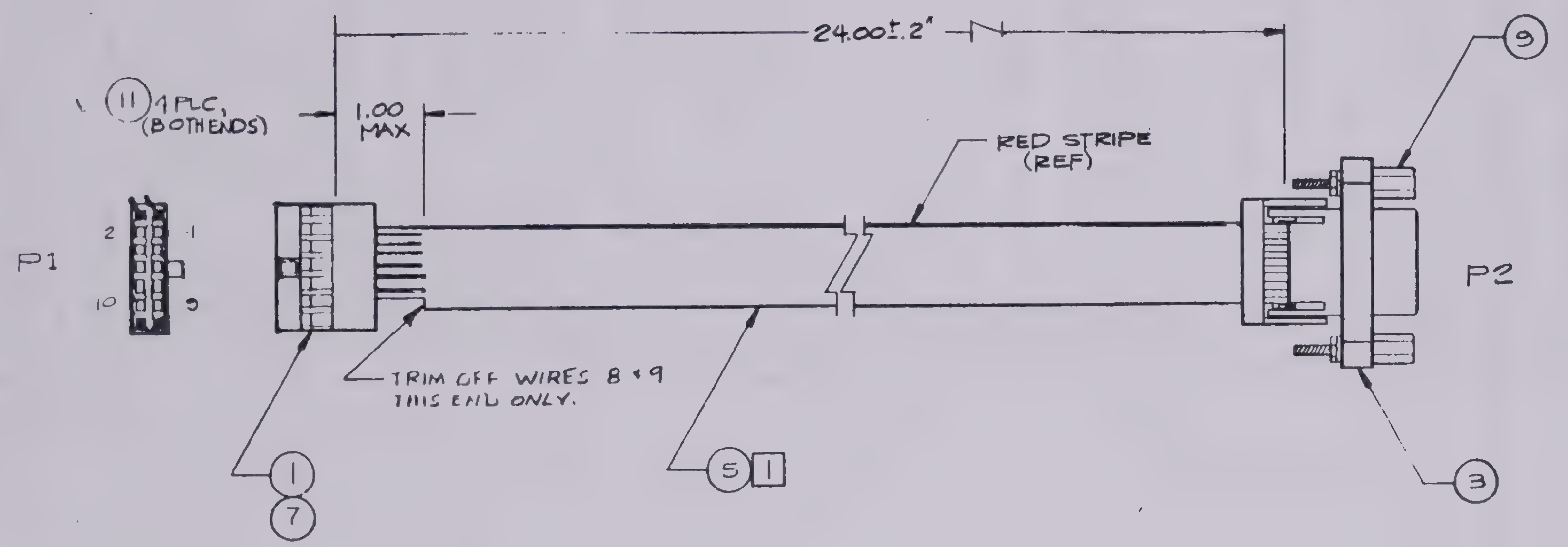
DRAWING NO. 2511-2032-4D — rev 2

wire no.	FROM CONN	FROM PIN	TO CONN	TO PIN	CABLE WIRE LIST FUNCTION	SIZE	COLOR
1	J1	1	P1	1	+12V	18	ORN
2	↑	2	↑	2	CHAS GND	↑	BLK
3	↓	3	↓	3	'A' GND	|	BRN
4	J1	4	P1	4	+5V	|	RED
						|	
5	P1	1	P2	1	+12V	|	ORN
6	↑	2	↑	2	CHAS GND	|	BLK
7	↓	3	↓	3	'A' GND	↓	BRN
8	P1	4	P2	4	+5V	18	RED

NOTES

1. STRIP 9 CONDUCTOR SECTION FROM THE 26 CONDUCTOR CABLE.
2. USE IN CONJUNCTION WITH WIRE LIST 2511-2025-AD.

SYM	DESCRIPTION	DATE	APPROVED
1	RELEASE PER PRB 3204		
2	TRACKING PER ECN 2822		A. VORA



DO NOT SCALE DRAWING	DRN G. ENRILE 5-3-83	GenRad Time/Data Division	
UNLESS OTHERWISE NOTED DIMENSIONS ARE IN INCHES TOLERANCES ON DECIMALS .XX ± .02 .XXX ± .010 ANGLES ± 0°30' REMOVE ALL BURRS AND SHARP EDGES	CHK	TITLE CABLE ASSY CHANNEL SELECTOR (INTERNAL)	
MATERIAL SEE LM 2511-2025-1D	APPROVED	CODE IDENT NO	SIZE C 2511-2025-1D REV 2
NEXT ASSEMBLY 2511-5453 / USED ON 2511 / APPLICATION	APPROVED	SCALE 2/1	SHEET 1 OF 1

GenRad

DR	G. ENRILE	DATE 5-5-83		
CHK	[illegible signature]	6-24-83		
APPD				
APPD				
APPD			USED ON	NEXT ASSY

DRAWING NO	2511-2025-4D	REV
	SHEET 1 OF 2	2

TITLE
CHANNEL SELECTOR INTERNAL

SYM	REVISION DESCRIPTION	DATE	APPD	SYM	REVISION DESCRIPTION	DATE	APPD
1	PRERELEASE PER PRB 3204	7JUL83	GCC				
2	TRACKING PER ECN 2822	10Feb8[illegible]	A.YORA				

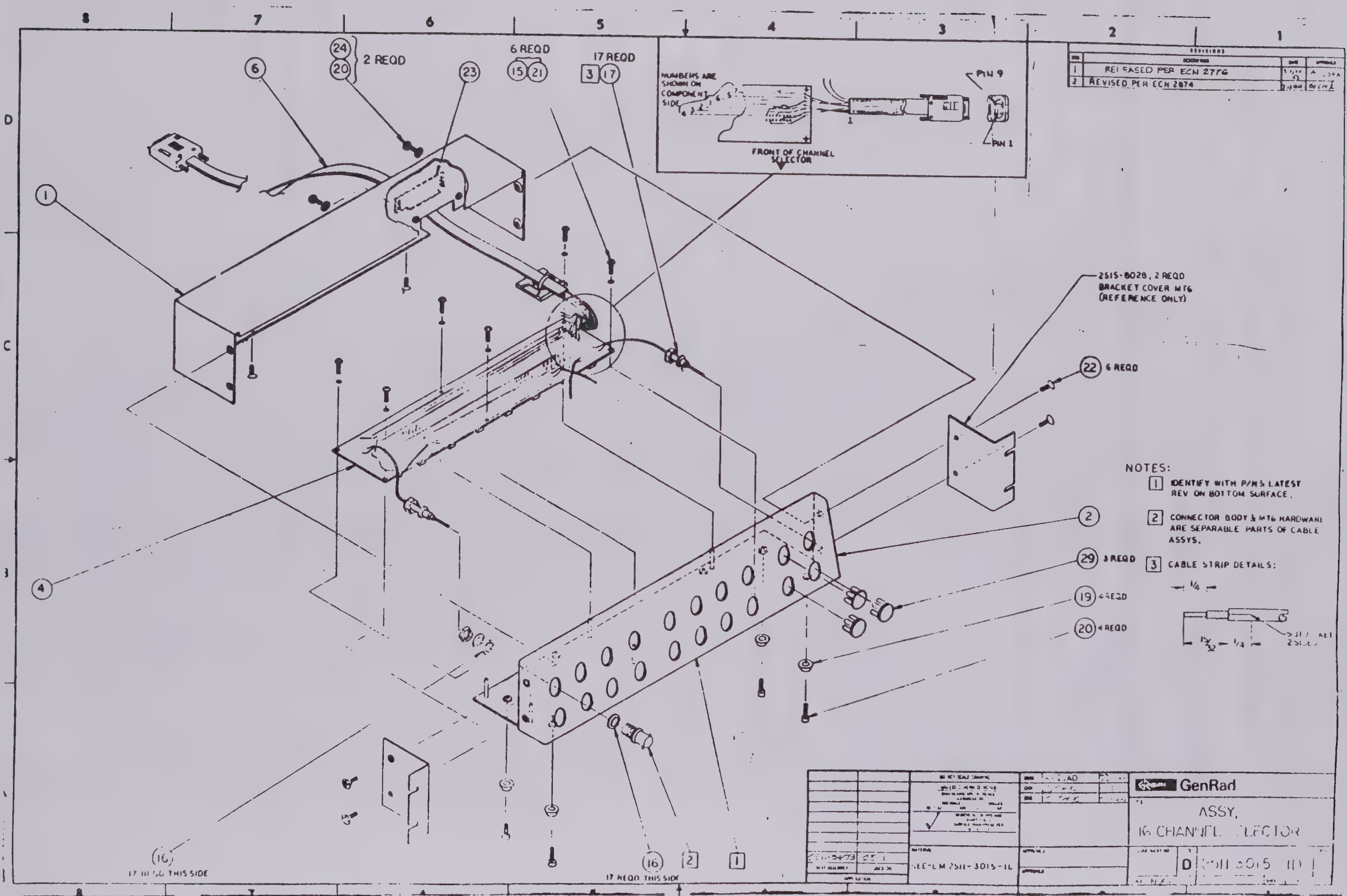
RECORD OF REVISION OF EACH SHEET

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
1	1																														
2	1																														

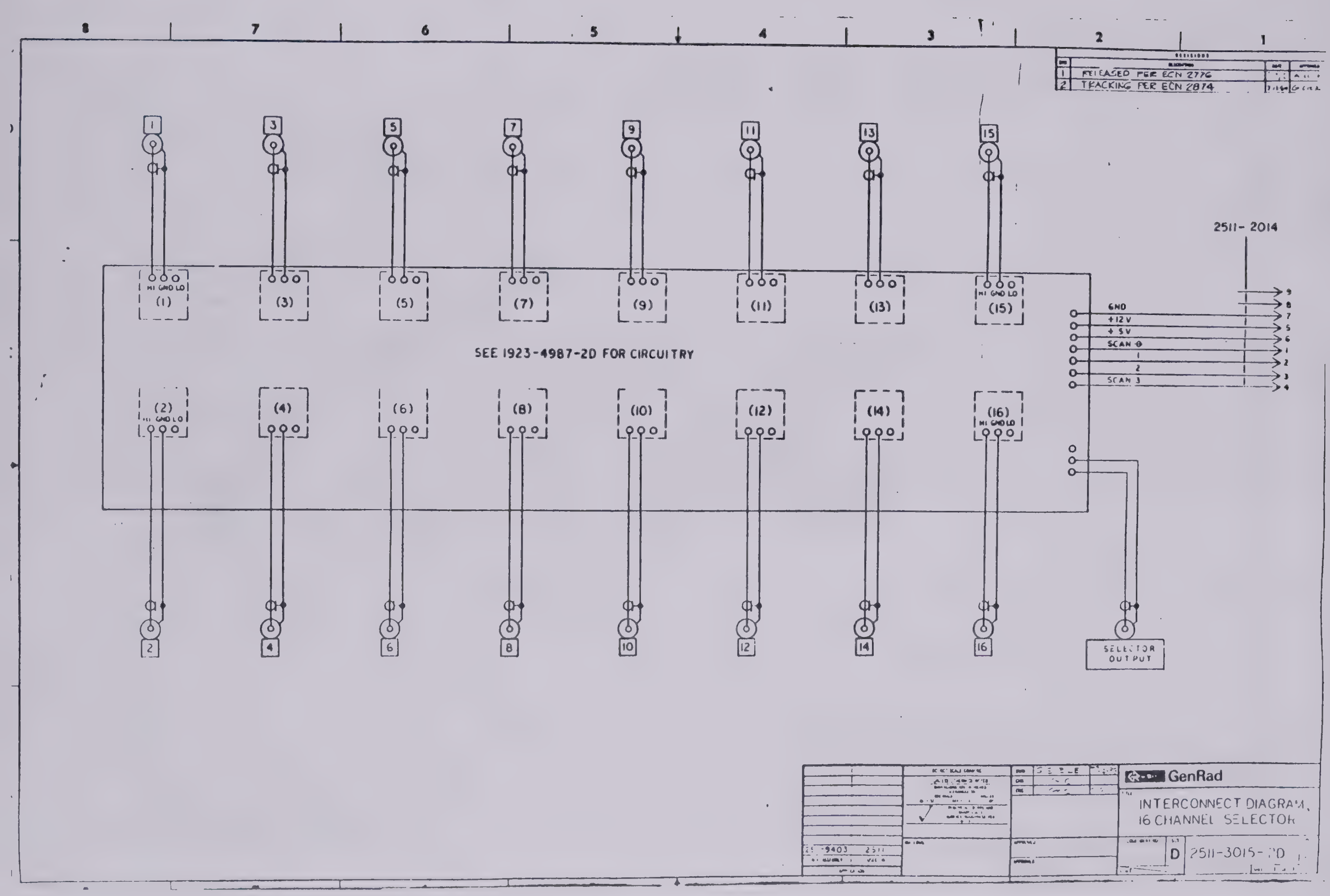
GenRad

TITLE	
CHANNEL SELECTOR INTERNAL	sht 2 of 2
DRAWING NO. 2511-2025-4D	rev 1

wire	FROM		TO		CABLE WIRE LIST		
no.	CONN	PIN	CONN	PIN	FUNCTION	SIZE	COLOR
1	P1	1	P2	1	SCANØ		RED
2		2		2	SCAN1		GRAY
3		3		3	SCAN2		GRAY
4		4		4	SCAN3		GRAY
5		5		5	+12V		GRAY
6		6		6	+5V		GRAY
7	P1	7	P2	7	GND		GRAY



REVISIONS
1 RELEASED PER ECN 2776
2 REVISED PER ECN 2874
NUMBERS ARE SHOWN ON COMPONENT SIDE
FRONT OF CHANNEL SELECTOR
PIN 9
PIN 1
24
20
2 REQD
6
23
6 REQD
15
21
17 REQD
3
17
1
4
2515-8028, 2 REQD BRACKET COVER MTG (REFERENCE ONLY)
22
6 REQD
2
29
3 REQD
19
4 REQD
20
4 REQD
16
17 REQD THIS SIDE
NOTES:
1 IDENTIFY WITH P/N'S LATEST REV ON BOTTOM SURFACE.
2 CONNECTOR BODY & MTG HARDWARE ARE SEPARABLE PARTS OF CABLE ASSYS.
3 CABLE STRIP DETAILS:
1/4
1/4
GenRad
ASSY,
16 CHANNEL SELECTOR
D

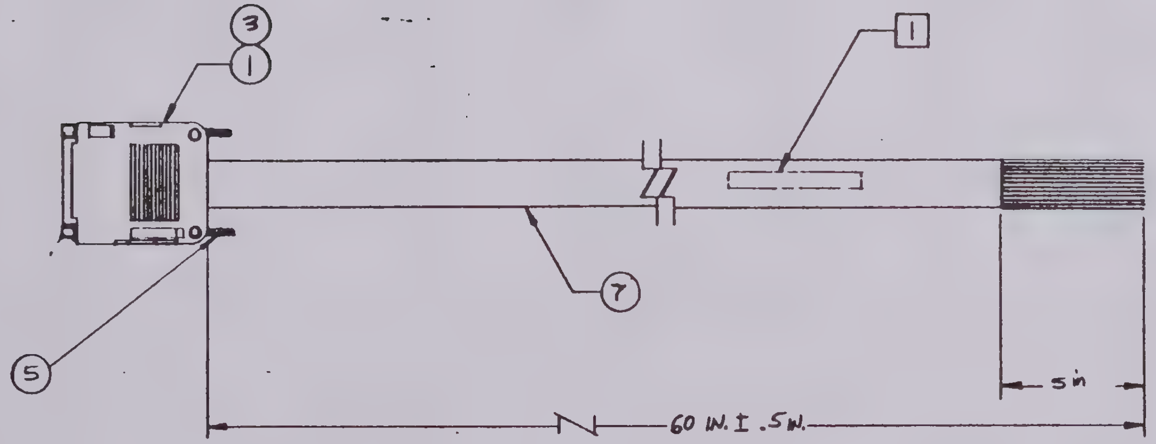


1 RELEASED PER ECN 2776
2 TRACKING PER ECN 2874
SEE 1923-4987-2D FOR CIRCUITRY
HI GND LO
(1) (2) (3) (4) (5) (6) (7) (8) (9) (10) (11) (12) (13) (14) (15) (16)
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
2511- 2014
GND
+12 V
+5 V
SCAN 0
1
2
SCAN 3
SELECTOR OUTPUT
GenRad
INTERCONNECT DIAGRAM, 16 CHANNEL SELECTOR
D 2511-3015-2D

NOTES:

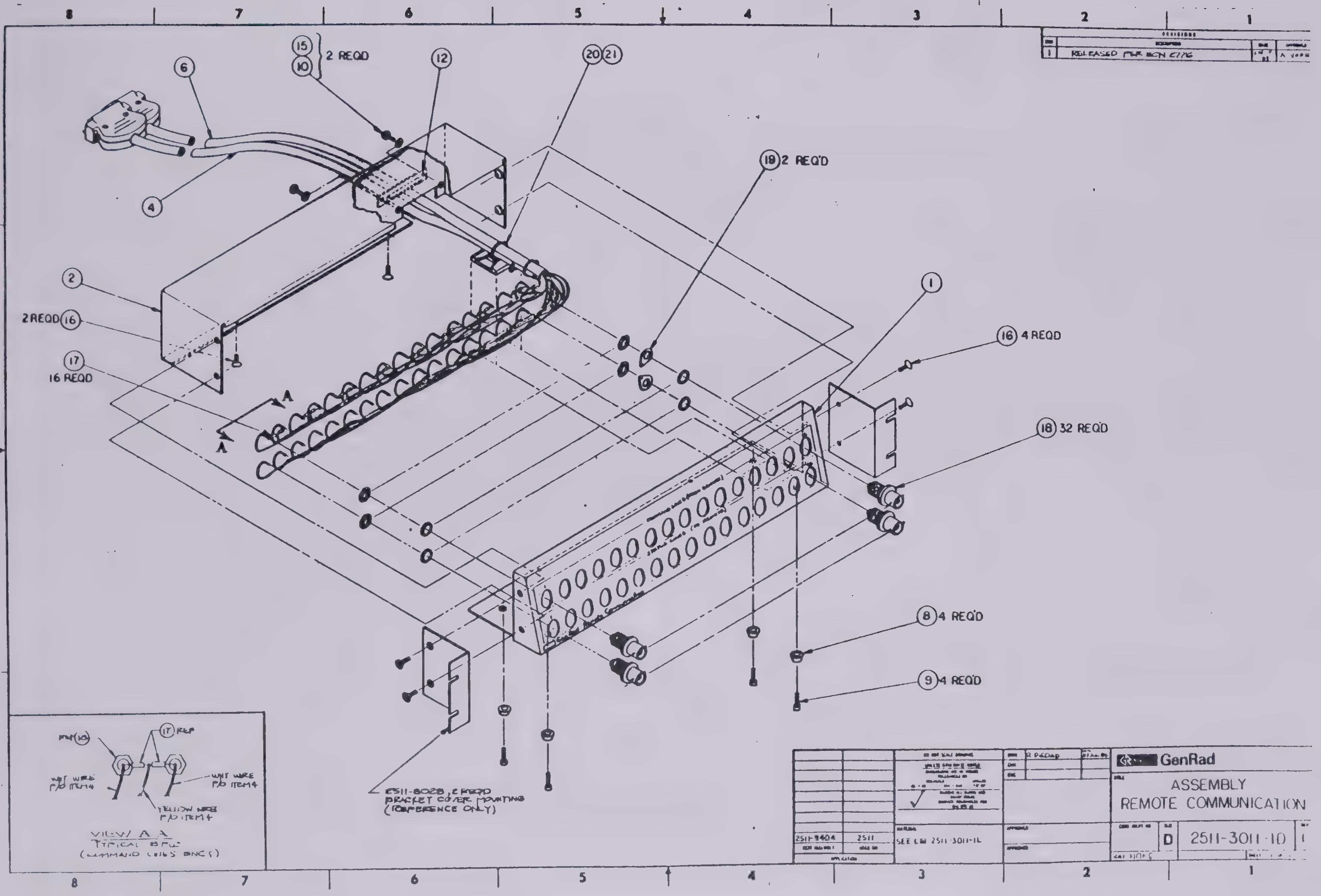
1. MARK ASSY WITH P/N & REV. USING .12 HIGH CHARACTERS, COLOR, WHITE EPOXY INK LOCATE APPROX WHERE SHOWN.

REVISIONS			
SYM	DESCRIPTION	DATE	APPROVED
1	RELEASE PER PRB 3204	10 MAY 83	A. VORA



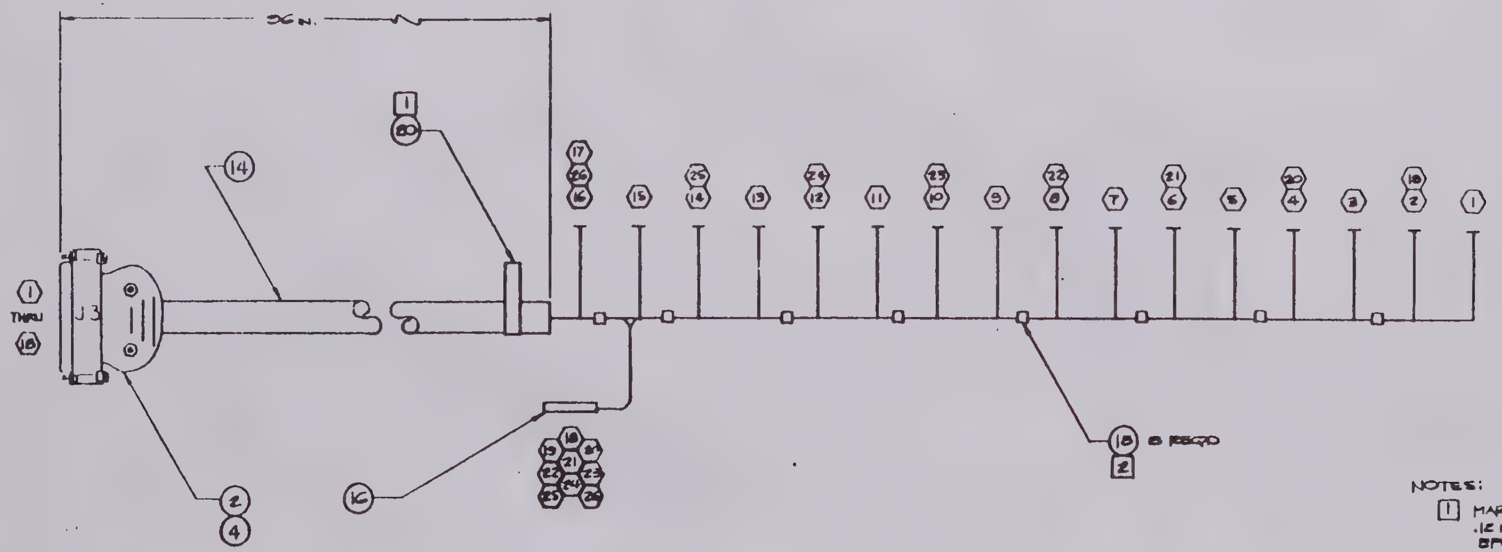
DO NOT SCALE DRAWING UNLESS OTHERWISE NOTED DIMENSIONS ARE IN INCHES TOLERANCES ON DECIMALS .XX ± .02 .XXX ± .010 ANGLES ± 0° 30' REMOVE ALL BURRS AND SHARP EDGES	DWN G. ENRILE 4-5-83 CHK G. COOK 4.25.83 ENG S THRIFT 5/12/83	GenRad Time/Data Division TITLE CABLE ASSY, CHANNEL SELECTOR (EXTERNAL)
MATERIAL SEE-2511-2024-1L	APPROVED K Bowe 2 May 83 APPROVED	CODE IDENT NO — SIZE C — 2511-2024-1D — REV 1 SCALE — SHEET — OF

NEXT ASSEMBLY	USED ON
2511-9403	2511
APPLICATION	



RELEASED PER ECN 6776
(15) (10) 2 REQD
(12)
(20)(21)
(6)
(4)
(19) 2 REQ'D
(2)
2 REQD (16)
(17) 16 REQD
A
(1)
(16) 4 REQD
(18) 32 REQ'D
(8) 4 REQ'D
(9) 4 REQ'D
2511-8028, 2 REQD BRACKET COVER MOUNTING (REFERENCE ONLY)
(17) REF
VIEW A-A TYPICAL BNC (COMMAND LINES BNCS)
YELLOW WIRE P/O ITEM 4
GenRad
ASSEMBLY
REMOTE COMMUNICATION
D
2511-3011-10
2511-9404
2511
SEE LW 2511-3011-1L

REV	DESCRIPTION	DATE
1	RELEASED PER PRO 8208	2 5 0 1



NOTES:

1. MARK CABLE WITH PART NO & REV. USING .12 HIGH CHARACTERS, COLOR, BLACK EPOXY INK.
2. LOCATE CABLE TIES APPROXIMATELY WHERE SHOWN.

GenRad

CABLE ASSY, COMMANDS FROM REMOT

NEXT ASSY	2511-3011
USED ON	2511
	SIZE LM 2511-2028-1L
SIZE	D
DWG NO	2511-2028-1D

GenRad

DR	L. WITZEL	DATE 10-83			DRAWING NO 2511-2028-4D	1
CHK					SHEET 1 OF 2	REV
APPD					TITLE WIRELIST, COMMANDS FROM REMOTE	
APPD			2511			
APPD			USED ON	NEXT ASSY		

SYM	REVISION DESCRIPTION	DATE	APPD	SYM	REVISION DESCRIPTION	DATE	APPD
1	RELEASED PER PRB 3208	9 NOV 83	A. VORA				

RECORD OF REVISION OF EACH SHEET

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
1	1																														

1 A3# 5100-0000

GenRad

TITLE WIRELIST, COMMANDS FROM REMOTE

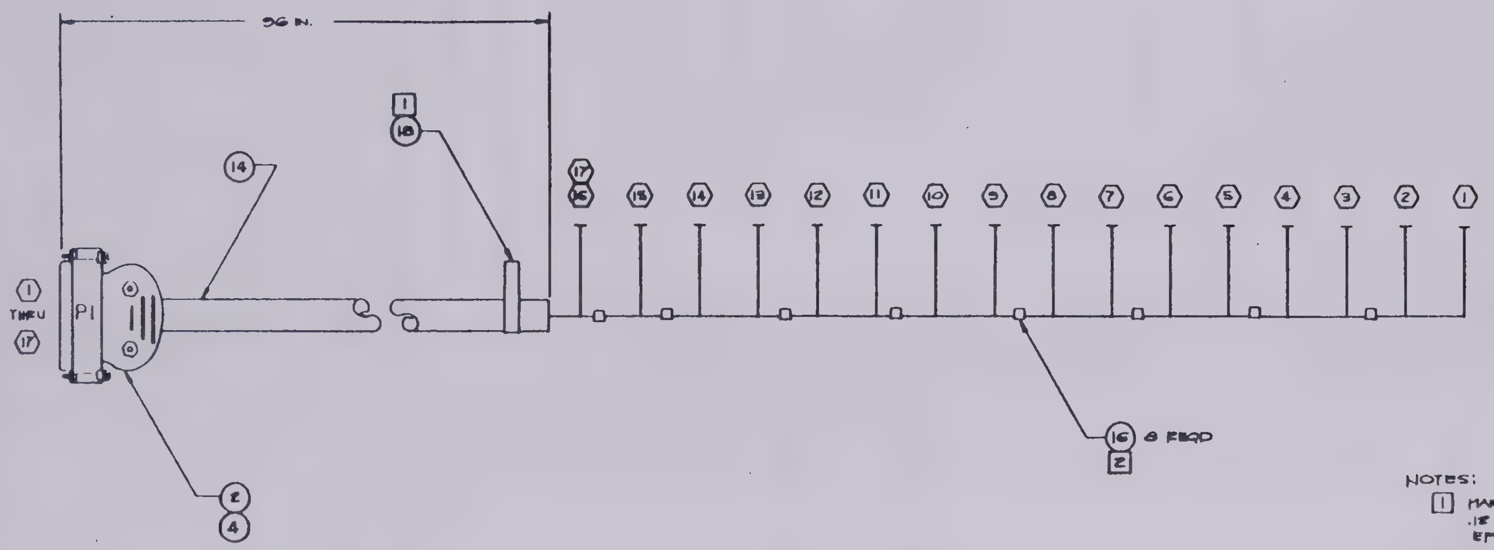
DRAWING NO. 2511-2028-4D

sht 2 of 2

rev 1

wire no.	FROM CONN	FROM PIN	TO CONN	TO PIN	CABLE WIRE LIST FUNCTION	SIZE	COLOR
1	J3	1	COMMAND BNC	1	COMMAND 1	24	WHT
2	J3	2	COMMAND BNC	2	COMMAND 2	24	WHT
3	J3	3	COMMAND BNC	3	COMMAND 3	24	WHT
4	J3	4	COMMAND BNC	4	COMMAND 4	24	WHT
5	J3	5	COMMAND BNC	5	COMMAND 5	24	WHT
6	J3	6	COMMAND BNC	6	COMMAND 6	24	WHT
7	J3	7	COMMAND BNC	7	COMMAND 7	24	WHT
8	J3	8	COMMAND BNC	8	COMMAND 8	24	WHT
9	J3	9	COMMAND BNC	9	COMMAND 9	24	WHT
10	J3	10	COMMAND BNC	10	COMMAND 10	24	WHT
11	J3	11	COMMAND BNC	11	COMMAND 11	24	WHT
12	J3	12	COMMAND BNC	12	COMMAND 12	24	WHT
13	J3	13	COMMAND BNC	13	COMMAND 13	24	WHT
14	J3	14	COMMAND BNC	14	COMMAND 14	24	WHT
15	J3	15	COMMAND BNC	15	COMMAND 15	24	WHT
16	J3	16	COMMAND BNC	16	COMMAND 16	24	WHT
17	J3	17	GROUND TERMINAL		GROUND	18	BLK
18	J3	18	(19-26)		+5V	18	YEL
19	(18)	-	R1-2		+5V	22	YEL
20	(18)	-	R3-4	-	+5V	22	YEL
21	(18)	-	R5-6	-	+5V	22	YEL
22	(18)	-	R7-8	-	+5V	22	YEL
23	(18)	-	R9-10	-	+5V	22	YEL
24	(18)	-	R11-12	-	+5V	22	YEL
25	(18)	-	R13-14	-	+5V	22	YEL
26	(18)	-	R15-16	-	+5V	22	YEL

REV	DESCRIPTION	DATE	APPROVED
1	RELEASED PER PRB 9208		



NOTES:

1. MARK CABLE WITH PART NO & REV. USING .12 HIGH CHARACTERS, COLOR, BLACK EPOXY INK.
2. LOCATE CABLE TIES APPROXIMATELY WHERE SHOWN.

GenRad

CABLE ASSY, STATUS TO REMOTE

NEXT ASSY	2511-301
USED ON	2511
OUTLINE	SEE LM 2511-2029-IL
SIZE	D
DWG NO	2511-2029 IL

GenRad

DR	L. WITZEL	DATE 10-83		
CHK				
APPD				
APPD			2511	
APPD			USED ON	NEXT ASSY

DRAWING NO	2511-2029-4D		1
	SHEET 1	OF 2	REV

TITLE WIRELIST, STATUS TO REMOTE

SYM	REVISION DESCRIPTION	DATE	APPD	SYM	REVISION DESCRIPTION	DATE	APPD
1	RELEASED PER PRB 3208	9 NOV 83	A. VORA				

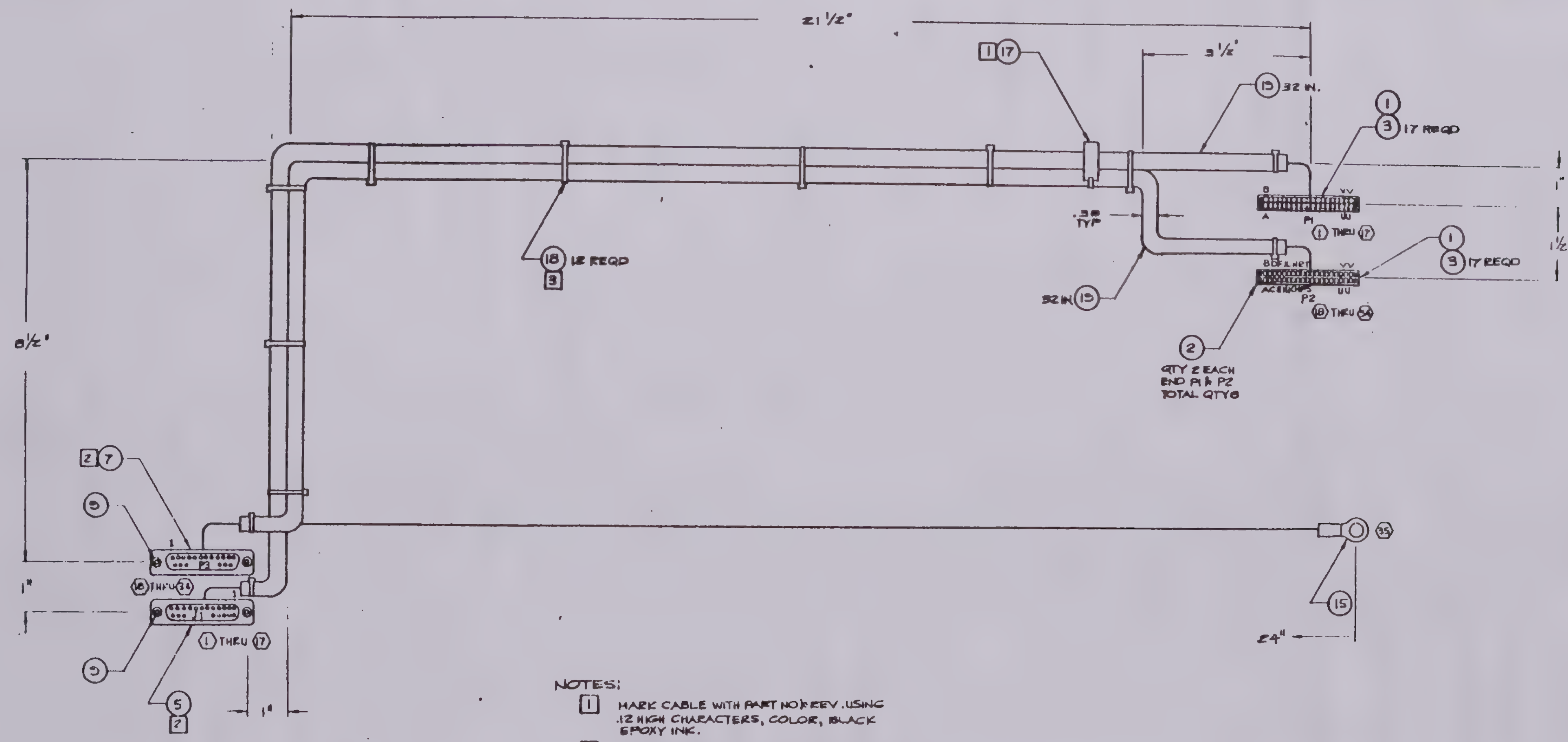
RECORD OF REVISION OF EACH SHEET

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
1	1																														

GenRad	TITLE WIRELIST, STATUS TO REMOTE	sht 2 of 2
	DRAWING NO. 2511-2029-4D	rev 1

wire	FROM		TO		CABLE WIRE LIST		
no.	CONN	PIN	CONN	PIN	FUNCTION	SIZE	COLOR
1	P1	1	STATUS BNC	1	STATUS 1	24	WHT
2	P1	2	STATUS BNC	2	STATUS 2	24	WHT
3	P1	3	STATUS BNC	3	STATUS 3	24	WHT
4	P1	4	STATUS BNC	4	STATUS 4	24	WHT
5	P1	5	STATUS BNC	5	STATUS 5	24	WHT
6	P1	6	STATUS BNC	6	STATUS 6	24	WHT
7	P1	7	STATUS BNC	7	STATUS 7	24	WHT
8	P1	8	STATUS BNC	8	STATUS 8	24	WHT
9	P1	9	STATUS BNC	9	STATUS 9	24	WHT
10	P1	10	STATUS BNC	10	STATUS 10	24	WHT
11	P1	11	STATUS BNC	11	STATUS 11	24	WHT
12	P1	12	STATUS BNC	12	STATUS 12	24	WHT
13	P1	13	STATUS BNC	13	STATUS 13	24	WHT
14	P1	14	STATUS BNC	14	STATUS 14	24	WHT
15	P1	15	STATUS BNC	15	STATUS 15	24	WHT
16	P1	16	STATUS BNC	16	STATUS 16	24	WHT
17	P1	17	GROUND TERMINAL		GROUND	18	BLK

LTR	DESCRIPTION
1	RELEASED PER PRB 3208
2	REVISED PER ECN 2797



NOTES:

1. MARK CABLE WITH PART NO/REV. USING .12 HIGH CHARACTERS, COLOR, BLACK EPOXY INK.
2. MARK CONNECTORS WITH APPROPRIATE DESIGNATOR (P1, P2, J1, P3) .12 HIGH CHARACTERS USING EPOXY INK OF A CONTRASTING COLOR.
3. LOCATE CABLE TIES APPROXIMATELY WHERE SHOWN.
4. ALL CONNECTORS SHOWN FROM SOLDER OR INSERTION SIDE.

2511-3104 | 2511

SEE LM2511-2027-IL

G. EYRILE

GenRad

CABLE ASSY, PARALLEL INTERFACE I/O

D 2511-2027

GenRad

DR	L. WITZEL	DATE 10-83		
CHK				
APPD				
APPD			2511	
APPD			USED ON	NEXT ASSY

DRAWING NO 2511-2027-4D

REV 2

SHEET 1 OF 3

TITLE

WIRELIST, PARALLEL INTERFACE I/O

SYM	REVISION DESCRIPTION	DATE	APPD	SYM	REVISION DESCRIPTION	DATE	APPD
1	RELEASED PER PRB #3208	9 Nov 83	A. VORA				
2	TRACKING PER ECN 2797	9 Nov 83	A. VORA				

RECORD OF REVISION OF EACH SHEET

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
1	1	1																													
2	1	1																													

GenRad

TITLE	sht 2 of 3
WIRELIST, PARALLEL INTERFACE I/O	
DRAWING NO. 2511-2027-4D	rev 1

wire	FROM		TO		CABLE WIRE LIST		
no.	CONN	PIN	CONN	PIN	FUNCTION	SIZE	COLOR
1	P1	C	J1	1	STATUS 1	24	WHT
2	P1	K	J1	2	STATUS 1	24	WHT
3	P1	NN	J1	3	STATUS 1	24	WHT
4	P1	U	J1	4	STATUS 1	24	WHT
5	P1	L	J1	5	STATUS 1	24	WHT
6	P1	N	J1	6	STATUS 1	24	WHT
7	P1	R	J1	7	STATUS 1	24	WHT
8	P1	T	J1	8	STATUS 1	24	WHT
9	P1	W	J1	9	STATUS 1	24	WHT
10	P1	X	J1	10	STATUS 1	24	WHT
11	P1	Z	J1	11	STATUS 1	24	WHT
12	P1	AA	J1	12	STATUS 1	24	WHT
13	P1	BB	J1	13	STATUS 1	24	WHT
14	P1	FF	J1	14	STATUS 1	24	WHT
15	P1	HH	J1	15	STATUS 1	24	WHT
16	P1	JJ	J1	16	STATUS 16	24	WHT
17	P1	KK	J1	17	GROUND	18	BLK
18	P2	TT	P3	1	COMMAND 1	24	WHT
19	P2	LL	P3	2	COMMAND 1	24	WHT
20	P2	H	P3	3	COMMAND 1	24	WHT
21	P2	BB	P3	4	COMMAND 1	24	WHT
22	P2	KK	P3	5	COMMAND 1	24	WHT
23	P2	HH	P3	6	COMMAND 1	24	WHT
24	P2	EE	P3	7	COMMAND 1	24	WHT
25	P2	CC	P3	8	COMMAND 1	24	WHT
26	P2	Z	P3	9	COMMAND 1	24	WHT
27	P2	Y	P3	10	COMMAND 1	24	WHT
28	P2	W	P3	11	COMMAND 1	24	WHT
29	P2	V	P3	12	COMMAND 12	24	WHT

GenRad

TITLE PARALLEL INTERFACE I/O

sht 3 of 3

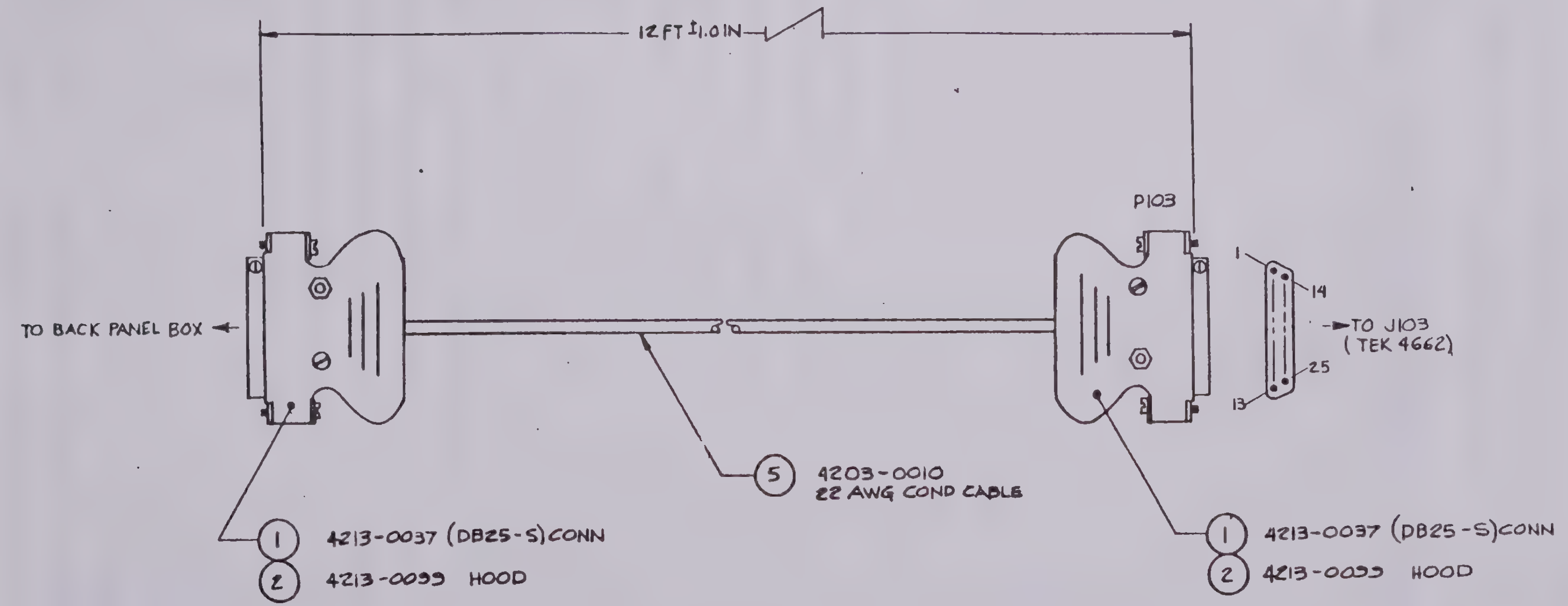
DRAWING NO. 2511-2027-40

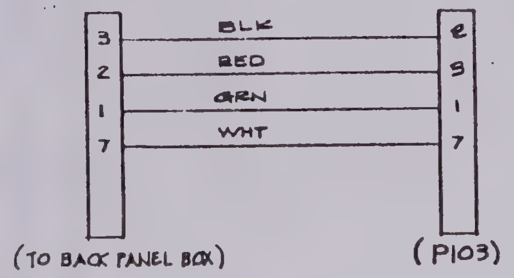
rev 1

wire no.	FROM CONN	FROM PIN	TO CONN	TO PIN	CABLE WIRE LIST FUNCTION	SIZE	COLOR
30	P2	V	P3	13	COMMAND 13	24	WHT
31	P2	P	P3	14	COMMAND 13	24	WHT
32	P2	N	P3	15	COMMAND 13	24	WHT
33	P2	M	P3	16	COMMAND 13	24	WHT
34	P2	L	P3	17	GROUND	18	BLK
35	PWR SUPPLY	+V1	P3	18	+5V	18	YEL

SYM	DESCRIPTION	LTR	APPROVED
1	RELEASE PER ECN 8523	7 FEB 82	A VORA

NOTES:





INTERCONNECT

DO NOT SCALE DRAWING	UNLESS OTHERWISE NOTED DIMENSIONS ARE IN INCHES
DRN	G. ENRILE 18-K-81
MATERIAL	SEE LM 2510-8024-IL
APPROVED	A. VORA
NEXT ASSEMBLY / USED ON	APPLICATION

GenRad Time/Data Division

TITLE: CABLE ASSEMBLY (TEK 4662)

CODE IDENT NO	SIZE		REV
	C	2510-2024-ID	1

GenRad

DR	R. BROVALD	5-19-80			DRAWING NO	1923-2140-01-IL	1
CHK	R. BROVALD	5-19-80				SHEET 1 OF 2	REV
APPD					TITLE	CABLE ASSEMBLY (COAX) (BNC PLUG TO BNC PLUG) 7 FT	
APPD							
APPD			USED ON	NEXT ASSY			

SYM	REVISION DESCRIPTION	DATE	APPD	SYM	REVISION DESCRIPTION	DATE	APPD
1	INITIAL RELEASE	23MAY80	A. VORA				

RECORD OF REVISION OF EACH SHEET

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
1	1																														

GenRad

SHEET 2

TITLE	CABLE ASSEMBLY (COAX) (BNC PLUG TO BNC PLUG) 7 FT	DRAWING NO	1923-2140-01-IL	REV	1

ITEM	PART NUMBER	QTY	NOMENCLATURE	REFERENCE DESIGNATION	NOTE
-A					
-B	1923-2140-10	REF	CABLE ASSEMBLY, COAX		
-C					
-D					
-					
1	4213-0029	2	BNC PLUG		
2					
3	8163-3001	7FT	CABLE SHIELDED (RG174/U)		
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

REVISIONS

SYM	DESCRIPTION
1	INITIAL RELEASE

NOTES

EFFECTIVITY DATE: ALL

S I N G L E L E V E L B I L L S O F M A T E R I A L

PARENT PART: 1923-4981 * CARD ASSY, ANALOG INPUT & FILTER UM: EA PROD CODE: 50 ECN: 2640 ASSEMBLY QTY: 1
ERC: SRCE CODE: A TYPE: 1 ABC: A PLAN CODE: F DATE: 07-MAR-84

ITEM NO	COMPONENT PART NUMBER	E R	DESCRIPTION / REMARKS	PR CD	COMM CODE	S C	T Y	S P	A B	P L	UM	EXTENDED QTY PER	START DATE	S/N	CLOSE DATE	S/N	OPR SEQ	LT OFF	STORES ACCOUNT
-A	1923-4981-1L		LIST OF MATL, ANALOG INPUT & FILTER	99		D	*		C	U	00	0					10	0	011-011
-B	1923-4981-1D		ASSY DWG, ANALOG INPUT & FILTER	99		D	*		C	U	00	0					10	0	011-011
-C	1923-4981-2D		DIAG, SCHEM, ANALOG INPUT & FILTER	99		D	*		C	U	00	0					10	0	011-011
-F	1923-1159		ITP	99		D	*		C	U	00	0					10	0	011-011
002	1923-6981		PWB, ANALOG INPUT AND FILTER	50	PA	P	1		A	P	EA	1					10	0	011-011
004	5418-1017		IC, NAND, BUFFER, 2 IN POS, 7437 U22	99	IA	P	1	S	C	P	EA	1					10	0	011-011
005	5418-1074		IC, BUFFERS/DRIVERS, HEX O.C., 7417 U20,21	90	JA	P	1	S	C	P	EA	2					10	0	011-011
007	5418-1032		IC, FLIP-FLOP, HEX D-TYPE, 74174 U26,27	90	IA	P	1	S	C	P	EA	2					10	0	011-011
008	5418-1137		IC, INSTRUMENTATION AMPL, AD521JD U2	90	JA	P	1		B	P	EA	1					10	0	011-011
009	5418-1065		IC, NAND, QUAD 2 IN OPEN COL, 7403 U23,24,25	99	IA	P	1	S	C	P	EA	3					10	0	011-011
010	5418-1127		IC, SYNC UP/DOWN COUNTER, 74191 U4,5	99	IC	P	1		C	P	EA	2					1	0	011-011
012	5418-1136		IC, 4 CHAN PROG AMPLIFIER, HA2405 U3	90	JA	P	1		B	P	EA	1					10	0	011-011
014	5418-1011		IC, AMPLIFIER, OPERATION, HA2625 U1,8-19	90	JA	P	1	S	A	P	EA	13					10	0	011-011
018	6088-0016		DIODE, SILICON (1N4148) CR1-21	99	KC	P	1	S	C	P	EA	21					10	0	011-011
019	7498-0009		SOCKET, IC, LO-PRO (16 PIN) DIL XU-3	99	ND	P	1		C	P	EA	1					10	0	011-011
020	7540-1814		SOCKET, IC, LO-PRO (14 PIN) DIL XU-2	99	NH	P	1		C	P	EA	1					10	0	011-011
024	4400-2070		CAP, CER, 1.0UF 50V 20 PCT C1,2	99	CA	P	1		B	P	EA	2					10	0	011-011
025	4383-0002		CAP, CER, 0.01UF, 50V, .20 PCT C7,8,10,11,15,16, 53-76,85,91,102-109	99	CA	P	1		B	P	EA	40					10	0	011-011
026	4383-3007		CAP, MIC, 1000PF 100V C4	99	CF	P	1		C	P	EA	1					10	0	011-011
027	4700-0354		CAP, MIC, 51PF 500V 5 PCT C14,77-88,90,110-121 C126	99	CF	P	1		C	P	EA	27					10	0	011-011
028	4700-0376		CAP, 75PF, 2%, 500V, DIP MICA C3	90	CE	P	1		C	P	EA	1					10	0	011-011
029	4700-0301		CAP, MIC, 33PF 500V 5 PCT C12	99	CF	P	1		C	P	EA	1					10	0	011-011
031	4862-1340		CAP, 1.0UF, 1%, 50V, METAL POLY FILM C20,23,29,38,41,47	98	CF	P	1		C	P	EA	6					10	0	011-011

EFFECTIVITY DATE: ALL

S I N G L E L E V E L B I L L S O F M A T E R I A L

PARENT PART: 1923-4961 * CARD ASSY, ANALOG INPUT & FILTER UM: EA PROD CODE: 96 ECN: 2846 ASSEMBLY QTY: 1
ERC: SRCE CODE: A TYPE: 1 ABC: A PLAN CODE: F DATE: 07-MAR-84

ITEM NO	COMPONENT PART NUMBER	E R	DESCRIPTION / REMARKS	PR CD	COMM CODE	S C	T Y	S P	A B	P L	UM	EXTENDED QTY PER	START DATE	S/N	CLOSE DATE	S/N	OPR SEQ	LT OFF	STORAGE ACCOUNT
033	4862-1342		CAP, .01UF, 1%, 200V,METAL POLY FLM C18,22,25,27,31,33, C36,40,43,45,49,51	98	CF	P	1		C	P	EA	12					10	0	011-011
035	4383-3014		CAP, CER, 2.2UF 50V 20 PCT C125	90	CA	P	1		C	P	EA	1					10	0	011-011
036	4383-5053		CAP, TAN, 15UF, 20 PCT, 25VDC C92-101	90	CD	P	1		B	P	EA	10					10	0	011-011
037	4862-1341		CAP, .1UF, 1%, 50V, METAL POLY FILM C17,21,24,26,30,32, C35,39,42,44,48,50	98	CF	P	1		C	P	EA	12					10	0	011-011
038	4383-3001		CAP, MIC, 5PF, 500V, 10 PCT C9,13	99	CF	P	1		C	P	EA	2					10	0	011-011
039	4700-0521		CAP, MIC, 240PF 500V 5 PCT C122,123	99	CF	P	1		C	P	EA	2					10	0	011-011
040	8213-0031		TRANSISTOR, NPN SWITCH 2N2219 Q1-8	99	TC	P	1		C	P	EA	8					10	0	011-011
041	4862-1343		CAP, .001UF, 1%,200V,METAL POLY FLM C19,28,34,37,46,52	96	CF	P	1		C	P	EA	6					10	0	011-011
042	6093-0004		RELAY, REED 5V 9.3MA K52,53	90	GH	P	1	S	C	P	EA	2					10	0	011-011
043	6093-0029		RELAY, REED, DPST, 5V (8D1P) K1	92	GH	P	1		C	P	EA	1					10	0	011-011
044	6093-0012		RELAY, DRY REED (DPDT) K2-51	90	GH	P	1		A	P	EA	50					10	0	011-011
047	6154-0084		RES, FLM, 499K 1/8W .1 PCT R4,6	99	RC	P	1		C	P	EA	2					10	0	011-011
048	6099-1335		RES, CMP, 330 1/4W 5 PCT R37	99	RB	P	1		C	P	EA	1					10	0	011-011
049	6250-3100		RES, FLM, 100K 1/8W 1 PCT R21,22,32,33	99	RC	P	1		C	P	EA	4					10	0	011-011
050	6099-3105		RES, CMP, 10K 1/4W 5 PCT R35,47	99	RB	P	1		C	P	EA	2					10	0	011-011
051	6099-2105		RES, CMP, 1K 1/4W 5 PCT R13,14,34	99	RB	P	1		C	P	EA	3					10	0	011-011
052	6099-2155		RES, CMP, 1.5K 1/4W 5 PCT R23	99	RB	P	1		C	P	EA	1					10	0	011-011
053	6099-2205		RES, CMP, 2.0K 1/4W 5 PCT R24-31	99	RB	P	1		C	P	EA	8					10	0	011-011
054	6099-1685		RES, CMP, 680 OHM, 1/4W, 5 PCT R36	99	RB	P	1		C	P	EA	1					10	0	011-011
055	6350-2909		RES, FLM, 90.9K 1/4W 1 PCT R7	93	RC	P	1		C	P	EA	1					10	0	011-011
056	6350-3287		RES, FLM, 287K 1/4W 1 PCT R1	99	RC	P	1		C	P	EA	1					10	0	011-011
057	6250-2200		RES, FLM, 20.0K 1/8W 1 PCT R3	99	RC	P	1		C	P	EA	1					10	0	011-011
058	6099-1105		RES, CMP, 100 1/4W 5 PCT R39	99	RB	P	1		C	P	EA	1					10	0	011-011

EFFECTIVITY DATE: ALL

S I N G L E L E V E L B I L L S O F M A T E R I A L

PARENT PART: 1923-4981 * CARD ASSY, ANALOG INPUT & FILTER UM: EA PROD CODE: 90 ECN: 2846 ASSEMBLY QTY: 1
ERC: SRCE CODE: A TYPE: 1 ABC: A PLAN CODE: F DATE: 07-MAR-84

ITEM NO	COMPONENT PART NUMBER	E R	DESCRIPTION REMARKS	PR CD	COMM CODE	S C	T Y	S P	A B	P L	UM	EXTENDED QTY PER	START DATE	S/N	CLOSE DATE	S/N	OPR SEQ	LT OFF	STOR S ACCOUNT
59	6003-0030		RES, VAR, 20K R2,8	99	QF	P	1		C	P	EA	2					10	0	011-011
60	6003-0031		RES, VAR, 100K R5	99	QF	P	1		C	P	EA	1					10	0	11-011
61	7573-0022		SPACER, RD, 4-40 X 3/8LG	99	HF	P	1		C	P	EA	3					10	0	011-011
062	7043-5002		SCREW, BIND HD, NYLON 4-40 X 3/8LG	99		X	3		C	U	EA	3					10	0	011-011
63	6134-9012		RES NETWORK R9,GR DWG NO.5423- 0154	99	RD	P	1		C	P	EA	1					10	0	011-011
64	6134-9010		RES NETWORK R10,11 GR DWG NO. 5423-0153	90	RD	P	1		C	P	EA	2					10	0	011-011
65	6134-9023		RES, SINGLE-IN-LINE, 1K R12	99	RD	P	1		C	P	EA	1					10	0	011-011
65	6134-9019		RES NETWORK R17,20 GR DWG NO.5423-0169	90	RD	P	1		B	P	EA	2					10	0	011-011
67	6134-9020		RES NETWORK R16,19 GR DWG NO.5423-0170	90	RD	P	1		B	P	EA	2					10	0	011-011
68	6134-9021		RES NETWORK R15,18 GR DWG NO.5423-0171	90	RD	P	1		B	P	EA	2					10	0	011-011
069	6099-0515		RES, CMP, 51 1/4W 5 PCT R38	99	RB	P	1		C	P	EA	1					10	0	011-011
70	7523-0009		TERMINAL, POST .025SQ .328H .445L TP1-7	99		X	3		B	U	EA	7					10	0	011-011
071	1762-3601		HANDLE, CARD EXTRACTOR	99	FO	P	1		C	P	EA	4					10	0	011-011

NOTES:

REV 1 RELEASED PER PRB 3039
REV 2 REVISED PER ECN 1738
REV 3 REVISED PER ECN 1989
REV 4 REVISED PER ECN 2041
REV 5 REVISED PER ECN 2144
REV 6 REVISED PER ECN 2396
REV 7 REVISED PER ECN 2521
REV 8 REVISED PER ECN 2530
REV 9 REVISED PER ECN 2537
REV 10 REVISED PER ECN 2552
REV 11 REVISED PER ECN 2629
REV 12 REVISED PER ECN 2748
REV 13 REVISED PER ECN 2846

DR	D. Fox	12-3-74		
CHK				
APPD				
APPD			TDV-20	
APPD			USED ON	NEXT ASSY

DRAWING NO 1923-4982-1L | REV 3 | SHEET 1 OF 3

TITLE CARD ASSY ADS TRIGGER

SYM	REVISION DESCRIPTION	DATE	APPD	SYM	REVISION DESCRIPTION	DATE	APPD
A	PROTOTYPE RELEASE						
B	ADDED R8 & TP1-4, DELETED VR1,2	4-29-75					
C	ADDED ITEMS 16,18,20 & R13,16	5-12-75					
D	ADDED ITEM 28, R18, CHANGED ITEMS 31,40,41	6-19-75					
E	CHANGED ITEMS 40,41,42	7-16-75					
F	CHANGED ITEM 34	7-29-75					
1	RELEASE PER PRB 3039 = REV F	5-5-76					
2	REVISED PER ECN 1872	3-27-78	JH				
3	DELETE/ADD ITEM 42 PER ECN 2454	12 MAY 81	A VOR				

RECORD OF REVISION OF EACH SHEET

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
A	A	A																													
B	B	B																													
C	C	C																													
D	D	D																													
E	D	E																													
F	D	F																													
1	1	1																													
2	1	2																													
3	1	3																													

0000-0015 REV 1

TIME/DATA

SHEET 2

TITLE CARD ASSY - TRIGGER | DRAWING NO 1923-4982-1L | REV 1

ITEM	PART NUMBER	QTY	NOMENCLATURE	REFERENCE DESIGNATION	NOTE
1	1923-4982	–	TRIGGER BOARD		
–	1923-4982-20	REF	LOGIC DIAGRAM		
2	1923-0982	1	PRINTED WIRING BOARD		
6	5418-1135	2	IC, ANALOG SWITCHES (DG200)	U3,5	
8	5418-1011	1	IC, OP AMPL (HA2625)	U1	
10	5418-1102	1	IC, VOLT. COMPAR./BUFFER (LM311)	U2	
12	5418-1032	1	IC, F.F., HEX (74174)	U10	
14	5418-1015	1	IC, MONOSTABLE MVB, RETRIG (74123)	U4	
16	5418-1031	1	IC, QUAD D F.F. (74175)	U8	
18	5418-1064	1	IC, 2 INPUT NAND (7400)	U6	
20	5418-1065	3	IC, 2 INPUT NAND O.C. (7403)	U7,9,11	
22	1923-0009	4	TERMINAL POST	TP1-4	

REVISIONS

SYM	DESCRIPTION

NOTES

0000-0016 REV 1

TIME/DATA

SHEET 3

TITLE CARD ASSY - TRIGGER				DRAWING NO 1923-4982-1L	REV 3
ITEM	PART NUMBER	QTY	NOMENCLATURE	REFERENCE DESIGNATION	NOTE
23	4700-0660	1	CAP, 100PF, 500V, 5%	C5	
24	4700-0354	1	CAP, 51PF, 300V, 5%	C7	
25	4383-0002	11	CAP, 0.01UF, 50V, 20%	C1-4, 6, 8-11, 14, 18	
26	4700-0614	2	CAP, 560PF, 300V, 5%	C12, 13	
27	4400-2070	3	CAP, 1UF, 50V, 20%	C15, 16, 17	
28	4700-0613	1	CAP, 510PF, 300V, 5%	C19	
29	6049-0296	1	RES, VAR, 2K	R18	
31	6134-9018	1	RESISTOR ARRAY	R11	
32	6134-9010	2	" "	R14, 15 GR DWG NO. 5423-0153	
34	6099-3105	2	RES, 10K, 1/4W, 5%	R5, 17	
35	6099-1565	1	RES, 560Ω, 1/4W, 5%	R4	
36	6099-3335	1	RES, 33K, 1/4W, 5%	R7	
37	6099-2515	2	RES, 5.1K, 1/4W, 5%	R9, 10	
38	6099-2105	4	RES, 1K, 1/4W, 5%	R8, 12, 13, 16	
39	6099-1515	1	RES, 510Ω, 1/4W, 5%	R6	
40	6250-2402	1	RES, 40.2K, 1/8W, 1%	R1	
41	6250-2200	1	RES, 20K, 1/8W, 1%	R3	
42	6250-2162	1	RES, 16.2K, 1/8W, 1%	R2	
43	1762-3601	1	HANDLE & RIVETS		
44	6250-1866	1	RES, 8.66K, 1/8W, 1%	R19	
45	7573-0022	1	SPACER		
46	7043-5002	1	SCREW, NYLON, 4-40		

REVISIONS

SYM	DESCRIPTION
2	ADD ITEM 44 (R19) PER ECN 1881
3	DELETE/ADD ITEM 42 PER ECN 2454

NOTES

0000-0018 REV 1

TIME/DATA

DR	[illegible signature]	DATE 5-?7-75		
CHK				
APPD			TDV-20	1923-2147
APPD			TDV-20	1923-2148
APPD			USED ON	NEXT ASSY

DRAWING NO 1923-4988-IL — REV 2 — SHEET [illegible] OF 3

TITLE UNIVERSAL INTERFACE ASSY

SYM	REVISION DESCRIPTION	DATE	APPD	SYM	REVISION DESCRIPTION	DATE	APPD
A	PROTOTYPE RELEASE						
B	ADDED ITEM 41, CHANGED ITEM 40, DELETED 36	6-16-75					
C	CHANGED ITEM 28						
D	ADDED 22 & 36, CHANGED 5 & 40	8-5-75					
1	RELEASE PER PRB-3039 = REV D	5-5-76					
2	SEE ECN 1827	6-14-77	[signature]				

RECORD OF REVISION OF EACH SHEET

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
A	A	A																													
B	A	B																													
C	A	C																													
D	D	D																													
1	1	1																													
2	1	2																													

00-0015 REV 1

TIME/DATA

SHEET 2

TITLE UNIVERSAL INTERFACE ASSY — DRAWING NO 1923-4988-IL — REV 1

ITEM	PART NUMBER	QTY	NOMENCLATURE	REFERENCE DESIGNATION	NOTE
1	1923-4988	1	CARD ASSY		
—	1923-4988-20	REF	SCHEMATIC		
2	1923-0988	1	PRINTED WIRING BOARD		
5	5418-1130	16	IC, QUAD BUS TRANSCEIVER	U36-39, 26-29, 41-45, 20, 30, 40	
7	5418-1032	3	IC, HEX D F.F. (74174)	U16, 18, 19	
9	6134-9007	1	IC, RES, PULL UP 470Ω	U17	
11	6134-9008	2	IC, RES, PULL UP 10K	U1, 21	
13	5418-1015	1	IC, DUAL ONE SHOT (74123)	U22	
15	5418-1016	4	IC, QUAD EXCLU NOR (8242)	U31-34	
17	5418-1064	3	IC, 2 INPUT NAND (7400)	U13, 25, 35	
19	5418-0781	3	IC, HEX INVERTER (74H04)	U5, 12, 24	
21	5418-1060	2	IC, 2 INPUT NOR (7402)	U9, 14	
22	5418-1000	2	IC, BUS DRIVER (8881)	U6, 7	

REVISIONS

SYM	DESCRIPTION

NOTES

0000-0016 REV 1

TIME/DATA

SHEET 3

TITLE	DRAWING NO	REV
UNIVERSAL INTERFACE ASSY	1923-4988-1L	2

ITEM	PART NUMBER	QTY	NOMENCLATURE	REFERENCE DESIGNATION	NOTE
23	5418-1067	4	IC, DUAL D F.F. (7474)	U2, 4, 10, 23	
25	5418-1058	2	IC, 2 INPUT AND (74H08)	U3, 11	
27	5418-1065	1	IC, 2 INPUT NAND (7403)	U15	
28	5418-1017	1	IC, 2 INPUT NAND BUFFER (7437)	U8	
29	4400-2070	3	CAP, 1UF, 50V, 20%	C1-3	
31	4383-0002	44	CAP, .01UF, 50V 20%	C7-C50	
32	4700-0660	1	CAP, 100PF, 500V, 5%	C4	
33	4383-3004	2	CAP, 510PF, 500V, 5%	C5, 6	
36	6099-2105	3	RES, 1K, 1/4W, 5%	R15, 16, 17	
37	6099-1755	2	RES, 750Ω, 1/4W, 5%	R2, 3	
38	6099-1185	2	↕ 180Ω, ↕ ↕	R4, 7	
39	6099-1395	2	↕ 390Ω, ↕ ↕	R5, 6	
40	6099-3105	7	RES, 10K, 1/4W, 5%	R8-13, R1	
41	6099-1475	1	RES, 470Ω, 1/4W, 5%	R14	
43	1762-3601	4	HANDLE & RIVETS		
45	7573-0022	2	SPACER		
47	7043-5002	2	SCREW, NYLON, 4-40		

REVISIONS

SYM	DESCRIPTION

NOTES

0000-0018 REV 1

TIME/DATA

					DRAWING NO	2501-2023-1L	1
DR	J. MONTEIRO	4-3-79			SHEET 1 OF 2		REV
CHK	J. SHRIGLEY	4-3-79			TITLE	CABLE ASSEMBLY, BNC/VIDEO	
APPD			2502 & 2503				
APPD			2505 & 2506	2501-3000			
APPD			USED ON	NEXT ASSY			

SYM	REVISION DESCRIPTION	DATE	APPD	SYM	REVISION DESCRIPTION	DATE	APPD
1	INITIAL RELEASE	4-5-79					

RECORD OF REVISION OF EACH SHEET

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
1	1.																														

0000-0003 REV 1

TIME/DATA

SHEET 2

TITLE	CABLE ASSEMBLY, BNC/VIDEO	DRAWING NO	2501-2023-1L	REV	1

ITEM	PART NUMBER	QTY	NOMENCLATURE	REFERENCE DESIGNATION	NOTE
-A					
-B					
-C					
-D					
-					
1	4213-0161	1	CONN., BNC, RECEP.		
2					
3	4213-0029	1	CONN., PLUG, MINI-COAX		
4	3163-3000	6	WIRE, SHLD COAX (RG174/U)		
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

REVISIONS

SYM	DESCRIPTION
1	INITIAL RELEASE

NOTES

0000-0010 REV 1

TIME/DATA

DR	J. MONTEIRO	6-2-79		
CHK	J. MONTEIRO	6-2-79		
APPD				
APPD			2501-3000	2502,3,4,5
APPD			USED ON	NEXT ASSY

DRAWING NO	2501-2028-1L	1
	SHEET 1 OF 2	REV
TITLE	HARNESS, CRT	

SYM	REVISION DESCRIPTION	DATE	APPD	SYM	REVISION DESCRIPTION	DATE	APPD
1	INITIAL RELEASE PER ECN 2197	7-10-79	JTL				

RECORD OF REVISION OF EACH SHEET

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
1	1																														

0000-0015 REV 1

TIME/DATA

SHEET

TITLE HARNESS, CRT	DRAWING NO 2501-2028-1L	REV 1

ITEM	PART NUMBER	QTY	NOMENCLATURE	REFERENCE DESIGNATION	NOTE
-A					
-B	2501-2028-1D	REF	ASSEMBLY DRAWING		
-C					
-D					
-					
1	7923-0055	4	TERMINAL, QUICK DISCON, .187 (BLUE)		
2	4230-4160	1	CONN, CAP, 6 PIN	(P1)	
3	4270-4160	5	PIN, CONTACT, MALE (14-20)		
4					
5					
6					
7					
8					
9					
10					
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13					
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20					

REVISIONS

SYM	DESCRIPTION
1	INITIAL RELEASE PER ECN 2197

NOTES

0000-0016 REV 1

GenRad

DR	C. ZIEGLER	DATE 5-8-30			DRAWING NO 2501-2045-IL	1A
CHK					SHEET OF 3	REV
APPD					TITLE CABLE ASSEMBLY, UNIBUS (MULTI-CHANNEL)	
APPD			2501	2501-3009		
APPD			USED ON	NEXT ASSY		

SYM	REVISION DESCRIPTION	DATE	APPD	SYM	REVISION DESCRIPTION	DATE	APPD
1	INITIAL RELEASE	[illegible]	[illegible]				
1A	REVISED PER ECN 2430	[illegible]	[illegible]				

RECORD OF REVISION OF EACH SHEET

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
1	1	1																													
1A	1A	1																													

0000-0015 REV 1

GenRad

(MASTER)

SHEET 2

TITLE	DRAWING NO	REV
CABLE ASSEMBLY, UNIBUS (MULTI-CHANNEL)	2501-2045-IL	1A

ITEM	PART NUMBER	QTY	NOMENCLATURE	REFERENCE DESIGNATION	NOTE
-A					
-B	2501-2045-10	REF	ASSEMBLY DRAWING		
-C		REF	SCHEMATIC		
-D					
-					
1					
2	1923-0874	1	PADDLE CARD	(NO HOLES)	
3					
4	1923-0875	1	PADDLE CARD	(WITH HOLES)	
5					
6	2501-7014	2	COVER, PROTECTIVE		
7					
8	1923-8205	2	CLAMP, CABLE SUPPORT		
9					
10	1923-8283	2	CARD, EXTENDER		
11					
12	1762-3601	4	HANDLE (DEC)		
13					
14	4203-3003	A/R	CABLE, FLAT (UNIBUS)	(2 PIECES)	(1)
15					
16	8163-7009	A/R	TAPE, FOAM (.03 THK X .25 W) DOUBLE COATED		(1)
17					
18	8163-7005	A/R	TAPE, FOAM (1/4 THK X 3/4 W)		(1)
19					
20	7043-1045	8	SCREW, PAN HD, #6-32 X .25		

REVISIONS

SYM	DESCRIPTION
1	INITIAL RELEASE
1A	REVISED PER ECN 2430 (QTY CHANGE ITEMS 14,16,18 &
-	NOTES)

NOTES

(1)

PART NUMBER	ITEM # 14, 18	16
2501-2045	36"	18"
2501-2045-01	192"	36"

0000-0016 REV 1

(MASTER)

GenRad

SHEET 3

TITLE CABLE ASSEMBLY, UNIBUS (MULTI-CHANNEL)			DRAWING NO 2501-2045-1L	REV 1

ITEM	PART NUMBER	QTY	NOMENCLATURE	REFERENCE DESIGNATION	NOTE
21					
22	7043-5052	4	SCREW, PAN HD, (NYLON), 6-32 X .50		
23					
24	5793-1002	8	NUT, HEX, 6-32 NC		
25					
26	5793-0015	4	NUT, HEX, 6-32 NC (SMALL PATT)		
27					
28	8013-0004	8	WASHER, FIBER, #6		
29					
30					
31					
32					
33					
34					
35					
36					
37					
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39					
40					
41					
42					
43					
44					
45					

REVISIONS

SYM	DESCRIPTION
1	INITIAL RELEASE

NOTES

0000-0016 REV 1

PRINTED 14-SEP-82 10:55 GENRAD - VAD DML VERSION 08-FEB-82 PAGE 1

EFFECTIVITY DATE: ALL

S I N G L E L E V E L B I L L S O F M A T E R I A L

PARENT PART: 2501-2066 PRINTER, BASIC ASSEMBLY UM: EA PROD CODE: 93 ECN: 2626 ASSEMBLY QTY: 1
ERC: SRCE CODE: A TYPE: 1 ABC: A PLAN CODE: P DATE: 26-AUG-82

ITEM NO	COMPONENT PART NUMBER	E R	DESCRIPTION REMARKS	PR CD	COMM CODE	S C	T Y	S P	A B	P L	UM	EXTENDED QTY.PER	START DATE	START S/N	CLOSE DATE	CLOSE S/N	OPR SEQ	LT OFF	STORES ACCOUNT
-A	2501-2066-1L		LIST OF MTL, PRINTER, BASIC ASSY	93		D	*		*	U	EA	0					10	0	011-011
-B	2501-2066-1D		ASSY DWG, PRINTER, BASIC ASSY	93		D	*		*	U	EA	0					10	0	011-011
-C	2501-2003-2D		SCHEM DIAGM, PRINTER ASSY (2501)	93		D	*		C	U	EA	0					10	0	011-011
001	1762-3268		PRINTER, THERMAL	90	PA	P	1		A	P	EA	1					10	0	011-011
002	2501-8036		COVER PLATE, PRINTER	93	FP	P	3		C	P	EA	1					10	0	011-011
003	2501-4705		PRINTER INTERFACE BOARD (T-80)	93		A	1		B	P	EA	1					10	0	011-011
007	2501-7001		LABEL, PRINTER (GENRAD LOGO)	93		P	3		C	P	EA	1					10	0	011-011
009	7573-0012		SPACER, HEX, 6-32 X 3/4 LG	99		P	1		C	P	EA	4					10	0	011-011
011	7043-1047		SCREW, PAN HD, 6-32 X 3/8LG	99		X	3		C	U	EA	8					10	0	011-011

NOTES:

REV 1 RELEASED PER ECN 2485
REV 2 TRACKING PER ECN 2524
REV 3 REVISED PER ECN 2626

END OF REPORT

GenRad

DR	G. ENRILE	DATE 3-25-81			DRAWING NO 2501-2067-1L	2
CHK					SHEET 1 OF 2	REV
APPD					TITLE HARNESS ASSEMBLY, PRINTER	
APPD						
APPD			USED ON	NEXT ASSY		

SYM	REVISION DESCRIPTION	DATE	APPD	SYM	REVISION DESCRIPTION	DATE	APPD
1	RELEASE PER ECN 2485	23SEP81	A. VORA				
2	REVISED PER ECN 2524	27 JAN 82	A. VORA				

RECORD OF REVISION OF EACH SHEET

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
1	1																														
2	2																														

GenRad

SHEET 2

TITLE HARNESS ASSEMBLY, PRINTER	DRAWING NO 2501-2067-1L	REV 2

ITEM	PART NUMBER	QTY	DESCRIPTION	REFERENCE DESIGNATION	NOTE
-A					
-B	2501-2067-10	REF	ASSEMBLY DRAWING		
-C	2501-2067-40	REF	WIRELIST		
-D					
-					
1					
2	8163-2059	4	WIRE, BLK, 16 AWG, TEFLON		
3					
4	8163-2060	2	WIRE, GRN, 16 AWG, TEFLON		
5					
6		2	WIRE, ORN, 16 AWG, TEFLON		
7					
8	8163-2062	2	WIRE, BLU, 16 AWG, TEFLON		
9					
10	8163-2063	2	WIRE, RED, 16 AWG, TEFLON		
11					
12	8163-2064	2	WIRE, GRAY, 16 AWG, TEFLON		
13					
14		5	TIE WRAP		
15	2501-2068	1	KIT, PRINTER INTERFACE CONNECTORS	P2, P30-33	
16					
17	4213-01[illegible]	1	CONN, PC, 25 PIN		
18	4203-3016	1	CABLE, FLAT, 25 COND, 23 AWG		
19					
20					

REVISIONS

SYM	DESCRIPTION
1	RELEASE PER ECN 2495
2	REVISED PER ECN 2524 (ADDED ITEMS 15,17 & 18)

NOTES

GenRad

DR	G. ENRILE	11-24-81		
CHK				
APPD				
APPD				
APPD			USED ON	NEXT ASSY

DRAWING NO	2501-2068-1L	1
	SHEET 1 OF 2	REV
TITLE	KIT, PRINTER INTERFACE CONNECTORS	

SYM	REVISION DESCRIPTION	DATE	APPD	SYM	REVISION DESCRIPTION	DATE	APPD
1	RELEASED PER ECN 2521	[illegible] 82	A [illegible]				

RECORD OF REVISION OF EACH SHEET

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
1	1																														

0000-0015 REV 1

GenRad

SHEET 2

TITLE	DRAWING NO	REV
KIT, PRINTER INTERFACE CONNECTORS	2501-2068-1L	1

ITEM	PART NUMBER	QTY	DESCRIPTION	REFERENCE DESIGNATION	NOTE
-A					
-B					
-C					
-D					
-					
1		1	PLUG, 12 X 2 MOD II (810036-001)	P30	
2		1	PLUG, 4 X 1 MOD I (810039-002)	P31	
3		2	PLUG, 2 X 1 MOD I (810039-001)	P32 & P33	
4		24	FEMALE CONTACT, MOD II (810035-001)		
5		10	FEMALE CONTACT, MOD I (810036-002)		
6		1	HOUSING, CONN, 9 CKT PLUG (801363-001)	P2	
7		6	CONTACT, SOCKET TIN, 14-20 AWG (801700-003)		
8					
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20					

REVISIONS

SYM	DESCRIPTION
1	RELEASED PER ECN 2524

NOTES

0000-0016 REV 1

EFFECTIVITY DATE: ALL

S I N G L E L E V E L B I L L S O F M A T E R I A L

PARENT PART: 2501-4700 • CARD ASSEMBLY, CPU BOARD UM: EA PROD CODE: 93 ECN: 2819 ASSEMBLY QTY: 1
ERC: SRCE CODE: A TYPE: 1 ABC: A PLAN CODE: F DATE: 12-JAN-84

ITEM NO	COMPONENT PART NUMBER	ER	DESCRIPTION / REMARKS	PR CD	COMM CODE	S C	T Y	S P	A B	P L	UM	EXTENDED QTY PER	START DATE	START S/N	CLOSE DATE	CLOSE S/N	OPR SEQ	LT OFF	STORES ACCOUNT
-A	2501-4700-11		LIST OF MIL, CARD ASSY, CPU BD	93		D	*		C	U	EA	0					10	0	011-011
-B	2501-4700-1D		ASSY DWG, CARD ASSY, CPU BD	93		D	*		C	U	EA	0					10	0	011-011
-C	2501-4700-2D		SCHEM DIAGM, CARD ASSY, CPU BD	93		D	*		C	U	EA	0					10	0	011-011
-I	2501-0700A		ARTWORK, CARD ASSY, CPU BD	93	PE	D	*		C	U	EA	0					10	0	011-011
001	2501-0700	*	PWB, CPU BOARD	93	PA	P	1		A	P	EA	1					10	0	011-011
002	1762-1529		HANDLE ASSEMBLY, HEX BOARD	90	FO	P	1		B	P	EA	1					10	0	011-011
005	5418-1049		IC, NAND, QUAD 2 IN, 74S00 U16,22,37,43,55,58, U66,67,79,98,119	99	IB	P	1	S	C	P	EA	11					10	0	011-011
006	5431-8416		IC, QUAD 2 IN NOR, 74S02 U41	99	IB	P	1		C	P	EA	1					10	0	011-011
007	5431-8408		IC, NAND, QUAD 2IN (74S03) U39	99	IB	P	1		C	P	EA	1					10	0	011-011
008	5418-1050		IC, INVERTER, HEX 74S04 U10,21,24,48,54,69, U94	99	IB	P	1	S	C	P	EA	7					10	0	011-011
010	5431-8440		IC, QUAD 2 IN POS AND, 74S08 U23,40,47,56,68	99	IB	P	1		C	P	EA	5					10	0	011-011
011	5418-1051		IC, NAND, TRIPLE 3 IN POS, 74S10 U42,50,65,70	99	IB	P	1	S	C	P	EA	4					10	0	011-011
012	5418-1052		IC, AND, TRIPLE 3 IN POS, 74S11 U20	99	IB	P	1		C	P	EA	1					10	0	011-011
014	5431-8405		IC, DUAL 4 IN POS NAND, 74S20 U59	99	IB	P	1		C	P	EA	1					10	0	011-011
016	5431-8432		IC, QUAD 2 IN POS OR (74S32) U19,44,45,83,95,101	92	IB	P	1		C	P	EA	6					10	0	011-011
017	5431-8406		IC, FLIP-FLOP, DUAL D-TYPE, 74S74 U51,57,100,126	99	IB	P	1		B	P	EA	4					10	0	011-011
018	5431-8412		IC, AND-OR-INVERTER, 74S64 U34	92	IB	P	1		C	P	EA	1					10	0	011-011
019	5418-1279		IC, 4 BIT MAG COMPARATOR (74S85) U33,103	99	IB	P	1		C	P	EA	2					10	0	011-011
020	5431-8466		IC, QUAD 2 IN EXCLUSIVE OR, 74S86 U46,49	99	IB	P	1		C	P	EA	2					10	0	011-011
023	5418-1261		IC, DECODER, 3-8 LINES (74S138) U53,65,104	99	IB	P	1		B	P	EA	3					10	0	011-011
024	5418-1238		IC, DECODE/MULTPLX, DUAL 2-4 74S139 U105,106	92	IB	P	1		C	P	EA	2					10	0	011-011
025	5431-8414		IC,NAND,DUAL 4" POS,50 OHM,74S140 U99,132	99	IB	P	1		C	P	EA	2					10	0	011-011
027	5431-8411		IC, 8 BIT DATA SEL/MPLXR (74S151) U35,36,38	99	IB	P	1		C	P	EA	3					10	0	011-011

EFFECTIVITY DATE: ALL

S I N G L E L E V E L B I L L S O F M A T E R I A L

PARENT PART: 2501-4700 * CARD ASSEMBLY, CPU BOARD UM: EA PROD CODE: 93 ECN: 2819 ASSEMBLY QTY: 1
ERC: SRCE CODE: A TYPE: 1 ABC: A PLAN CODE: F DATE: 12-JAN-84

ITEM NO	COMPONENT PART NUMBER	C R	DESCRIPTION / REMARKS	PR CD	COMM CODE	S C	T Y	S P	A B	P L	UM	EXTENDED QTY PER	START DATE	S/N	CLOSE DATE	S/N	DRW SEQ	LT TF	STORES ACC UNT
028	5418-1278		IC, SYNCH 4 BIT UP/DN CNTR (74S169) U92,93,122	99	IB	P	1		B	P	EA	3					10	0	011-011
029	5431-8574		IC, HEX D TYPE FLIP FLOP, 74S174 U86,87,107	92	IB	P	1		C	P	EA	3					10	0	011-011
030	5418-1271		IC, FLIP/FLOP, QUAD D-TYPE (74S175) U18,32	99	IB	P	1		C	P	EA	2					10	0	011-011
031	5418-1263		IC, LOOK-AHEAD CARRY GEN (74S182) U28	99	IB	P	1		A	P	EA	1					10	0	011-011
032	5431-8795		IC, 4 BIT PARA S/R (74S195) U121	99	IC	P	1		C	P	EA	1					10	0	011-011
035	5418-1277		IC, 4 BIT BIN ADDER FC (74S283) U118	99	IB	P	1		C	P	EA	1					10	0	011-011
038	5418-1182		IC, QUAD BUS BUFFER 74LS125 U11,13,15,64	99	IC	P	1		C	P	EA	4					10	0	011-011
039	5418-1281		IC, QUAD BUS BUFF TRI-ST (74LS126) U12,14	99	IC	P	1		C	P	EA	2					10	0	011-011
040	5431-8753		IC, DUAL 4-1 DATA SEL/MULT, 74LS153 U62,63	92	IC	P	1		C	P	EA	2					10	0	011-011
041	5431-8758		IC, 4-16 DECODE/DEMULT, 74LS158 U5,9	92	IC	P	1		C	P	EA	2					10	0	011-011
042	5418-1295		IC, SYNC 4 BIT COUNTER (74LS163A) U88-91	99	IC	P	1		C	P	EA	4					10	0	011-011
043	5431-8775		IC, FLIP-FLOP, QUAD D-TYPE, 74LS175 U6,8	99	IC	P	1		C	P	EA	2					10	0	011-011
048	5418-1257		IC, OCTAL TRI-STATE INV 74LS240 U7	92	IC	P	1		B	P	EA	1					10	0	011-011
049	5431-8844		IC, BUFFER OCT TRI-SET (74LS244) U17,60,61,73,75,76, U78,96,97	93	IC	P	1		B	P	EA	9					10	0	011-011
050	5418-1284		IC, DUAL 4-1 LYN SEL/MPXR (74LS253) U64	99	IC	P	1		C	P	EA	1					10	0	011-011
053	5418-1246		IC, OCTAL D TYPE F/F,TRI-ST 74LS374 U71,72,74,77	99	IC	P	1		B	P	EA	4					10	0	011-011
054	5418-1252		IC, QUAD 2IN MULT W/STORAGE 74LS399 U25-27,29-31,80,81	92	IC	P	1		C	P	EA	8					10	0	011-011
057	5418-1280		IC, IOLINE DEC74 LINE BCD (74147) U82	99	IA	P	1		A	P	EA	1					10	0	011-011
058	5418-1106		IC, LINE PRIORITY ENCODER, 74148 U52	90	IA	P	1	S	C	P	EA	1					10	0	011-011
061	5418-1285		IC, 64 BIT RAM (AM29701) U108-117	99	RC	P	1		B	P	EA	10					10	0	011-011
062	5418-1206		IC, 4 BIT BP SLICE (AM2901A) U1-4	99	MA	P	1		B	P	EA	4					10	0	011-011
063	7498-0015		SOCKET, IC, 16 PIN LO-PRO XU28,92	99	NO	P	1		C	P	EA	2					10	0	011-011
064	7498-0062		SOCKET, IC, LO-PRO (40 PIN) DIL XU1-4	92	ND	P	1		C	P	EA	4					10	0	011-011
066	4383-3015		CAP, MIC, 100PF 500V 5 PCT C30	99	CF	P	1		C	P	EA	1					10	0	011-011

EFFECTIVITY DATE: ALL

SINGLE LEVEL BILLS OF MATERIAL

PARENT PART: 2501-4700 * CARD ASSEMBLY, CPU BOARD
ERC: SRCE CODE: A TYPE: 1
UM: EA ABC: A
PROD CODE: 93 PLAN CODE: F
ECN: 2619 DATE: 12-JAN-84
ASSEMBLY QTY: 1

ITEM NO	COMPONENT PART NUMBER	DESCRIPTION / REMARKS	FR CD	COMM CODE	S C	T Y	S P	A B	P L	UM	EXTENDED QTY PER	START DATE	S/N	CLOSE DATE	S/N	OPR SEQ	LT OFF	STORES ACCOUNT
67	4383-0021	CAP, CER, .002UF, 100V, 5 PCT C38	99	CA	P	1		C	P	EA	1					10	0	011-011
68	4383-0022	CAP, CER, .01UF, 100V, 20 PCT C1-29,31,32,35-37, C39-44	99	CA	P	1		B	P	EA	40					10	0	011-011
69	4400-2070	CAP, CER, 1.0UF 50V 20 PCT C33-45	99	CA	P	1		B	P	EA	3					10	0	011-011
73	4303-0023	CRYSTAL OSC, 16.0000 MHZ, 50 PPM SR Y1	99	CP	P	1		C	P	EA	1					10	0	011-011
75	6099-1105	RES, CMP, 100 1/4W 5 PCT R19	99	RB	P	1		C	P	EA	1					10	0	011-011
76	6099-1435	RES, CMP, 430 1/4W 5 PCT R13,15,16	99	RB	P	1		C	P	EA	3					10	0	011-011
77	6099-1475	RES, CMP, 470 1/4W 5 PCT R1,2	99	RB	P	1		C	P	EA	2					10	0	011-011
78	6099-1515	RES, CMP, 510 1/4W 5 PCT R8	99	RB	P	1		C	P	EA	1					10	0	011-011
79	6099-1625	RES, CMP, 820 1/4W 5PCT R12	99	RB	P	1		C	P	EA	1					10	0	011-011
80	6099-2105	RES, CMP, 1K 1/4W 5 PCT R3-7,9-11,14,17,18	99	RB	P	1		C	P	EA	11					10	0	011-011
81	6099-1365	RES, CMP, 360 1/4W 5 PCT R20,21	99	RB	P	1		C	P	EA	2					10	0	011-011
82	6099-1395	RES, CMP, 390 1/4W 5 PCT R22	99	RB	P	1		C	P	EA	1					10	0	011-011
83	6134-5033	RES, NETWORK, 390 OHMX7, 2% (SIP) RP1,2	99	RD	P	1		C	P	EA	2					10	0	011-011

NOTES:

REV 1 INITIAL RELEASE
REV 1A REVISED PER EDITORIAL
REV 2 REVISED PER ECN 2149/2155
REV 3 REVISED PER ECN 2212
REV 3A REVISED PER ECN 2229
REV 4 TRACK PER ECN 2256
REV 5 TRACK PER ECN 2319
REV 6 TRACK PER ECN 2448
REV 8 REVISED PER ECN 2676
REV 9 TRACK PER ECN 2819

EFFECTIVITY DATE: ALL

S I N G L E L E V E L B I L L S O F M A T E R I A L

PARENT PART: 2501-4701-01 • PROM BOARD ASSEMBLY UM: EA PROD CODE: 93 ECN: 2825 ASSEMBLY QTY: 1
ERC: SPCF CODE: A TYPE: 1 ABC: A PLAN CODE: F DATE: 07-NOV-83

ITEM NO	COMPONENT PART NUMBER	E R	DESCRIPTION / REMARKS	PR CD	COMM CODE	S C T Y S P A B P L	UM	EXTENDED QTY PER	START DATE S/N	CLOSE DATE S/N	OPR SEQ	LT OFF	STORES ACCOUNT
-A	2501-4701-01-1L		LIST OF MTL, PROM BD ASSEMBLY	93		D * * U	EA	0			10	0	011-011
-B	2501-4701-01-1D		ASSY DWG, PROM BD ASSEMBLY	93		D * * U	EA	0			10	0	011-011
-C	2501-4701-01-2D		SCHEM DIAGM, PROM BD ASSEMBLY	93		D * * U	EA	0			10	0	011-011
-T	2501-0701A		ARTWORK, CARD ASSY, PROM	93	PB	D * C U	EA	0			10	0	011-011
001	2501-0701		PWB, PROM	93	PA	P 1 A P	EA	1			10	0	011-011
002	1762-3525		HANDLE ASSEMBLY, HEX BOARD	90	FO	P 1 U P	EA	1			10	0	011-011
004	5418-1049		IC, NAND, QUAD 2 IN, 74S00 U3,77,102	99	IB	P 1 S C P	EA	3			10	0	011-011
005	5431-8416		IC, QUAD 2 IN NOR, 74S02 U51,70	99	IB	P 1 C P	EA	2			10	0	011-011
006	5431-8408		IC, NAND, QUAD 2IN (74S03) U78	99	IB	P 1 C P	EA	1			10	0	011-011
007	5418-1050		IC, INVERTER, HEX 74S04 U14,49,104	99	IB	P 1 S C P	EA	3			10	0	011-011
008	5431-8405		IC, DUAL 4 IN POS NAND, 74S20 U71	99	IB	P 1 C P	EA	1			10	0	011-011
009	5431-8440		IC, QUAD 2 IN POS AND, 74S08 U47,56,82	99	IB	P 1 C P	EA	3			10	0	011-011
010	5431-8610		IC, NAND, TRIPLE 3 IN POS, 74LS10 U72	99	IC	P 1 C P	EA	1			10	0	011-011
011	5431-8430		IC, 8 IN POS NAND, 74S30 U53	99	IB	P 1 C P	EA	1			10	0	011-011
012	5431-8432		IC, QUAD 2 IN POS OR (74S32) U79	92	IB	P 1 C P	EA	1			10	0	011-011
013	5418-1176		IC, AND-OR-INVERT 74S51 U99	92	IB	P 1 C P	EA	1			10	0	011-011
014	5431-8406		IC, FLIP-FLOP, DUAL D-TYPE, 74S74 U55,100,103,113	99	IB	P 1 H P	EA	4			10	0	011-011
016	5431-8404		IC, FLIP-FLOP, DUAL JK, 74S112 U97	99	IC	P 1 C P	EA	1			10	0	011-011
017	5431-8415		IC, 13 IN POS NAND, 74S133 U54	99	IB	P 1 C P	EA	1			10	0	011-011
018	5418-1261		IC, DECODER, 3-8 LINES (74S138) U42	99	IB	P 1 B P	EA	1			10	0	011-011
019	5418-1238		IC, DECODE/MULTPLX, DUAL 2-4 74S139 U76	92	IB	P 1 C P	EA	1			10	0	011-011
020	5431-8414		IC,NAND,DUAL 4" POS,50 OHM,74S140 U81	99	IB	P 1 C P	EA	1			10	0	011-011
021	5418-1186		IC, DATA SELECT/MULTPLEX 74S157 U65,66	92	IC	P 1 C P	EA	2			10	0	011-011
022	5431-8565		IC, 4 BIT BINARY COUNTER 74S163 U98	92	IB	P 1 C P	EA	1			10	0	011-011

EFFECTIVITY DATE: ALL

S I N G L E L E V E L B I L L S O F M A T E R I A L

PARENT PART: 2501-4701-01 • PROM BOARD ASSEMBLY UM: EA PROD CODE: 92 ECN: ... ASSEMBLY QTY: 1
ERC: SPCE CODE: A TYPE: 1 ABC: A PLAN CODE: F DATE: 07-NOV-8.

ITEM NO	COMPONENT PART NUMBER	E R	DESCRIPTION / REMARKS	PR CD	COMM CODE	S C	T Y	S F	A B	P L	UM	EXTENDED QTY PER	START DATE	S/N	CLOSE DATE	S/N	OPR SEQ	LT OFF	STORES ACCOUNT
023	5431-8574		IC, HEX D TYPE FLIP FLOP, 74S174 / U74	92	IB	P	1		C	P	EA	1					10	0	311-011
025	5418-1266		IC, OCT TRI-STATE INV (74S240) / U40,41	99	IB	P	1		A	P	EA	2					10	0	311-011
027	5418-1276		IC, 256 X 4 BIT RAM (93L422) / U83-86	99	MC	P	1		A	P	EA	4					10	0	311-011
030	5431-8614		IC, HX SCHMT-TR INVERT 74LS14 / U2	99	IC	P	1		C	P	EA	1					10	0	311-011
031	5431-8620		IC, NAND, DUAL 4 IN POS, 74LS20 / U7	99	IC	P	1		C	P	EA	1					10	0	311-011
032	5431-8627		IC, TRIPLE 3 IN POS NOR, 74LS27 / U50,52	99	IC	P	1		C	P	EA	2					10	0	311-011
033	5431-8674		IC, FLIP-FLOP, DUAL D-TYPE, 74LS74 / U5,6,9,101,116	99	IC	P	1		C	P	EA	5					10	0	311-011
034	5431-8686		IC, EXCLUSIVE OR, QUAD 2 IN, 74LS86 / U8	99	IC	P	1		C	P	EA	1					10	0	311-011
035	5431-8723		IC, MONOSTABLE MVB RETRIG, 74LS123 / U4	99	IC	P	1		C	P	EA	1					10	0	311-011
036	5418-1182		IC, QUAD BUS BUFFER 74LS125 / U80	99	IC	P	1		C	P	EA	1					10	0	311-011
038	5431-8751		IC, DATA SEL/MPLXR, 74LS151 / U10	99	IC	P	1		C	P	EA	1					10	0	311-011
039	5431-8757		IC, QUAD 2-1 LINE DATA SEL, 74LS157 / U73	99	IC	P	1		C	P	EA	1					10	0	311-011
041	5431-8774		IC, FLIP-FLOP, HEX D-TYPE, 74LS174 / U15,87,88	99	IC	P	1		C	P	EA	3					10	0	311-011
042	5431-8844		IC, BUFFER OCT TRI-ST (74LS244) / U43,48,63,64,69,109, U110	93	IC	P	1		B	P	EA	7					10	0	311-011
043	5431-8845		IC, OCTAL BUS XCVR (74LS245) / U57,58	99	IC	P	1		B	P	EA	2					10	0	311-011
045	5418-1197		IC, FLIP FLOP D TYPE 74LS273 / U11,13,75,105,106	92	IC	P	1		B	P	EA	5					10	0	311-011
047	5431-8883		IC, 4 BIT BIN ADDER (74LS283) / U67,68	99	IC	P	1		B	P	EA	2					10	0	311-011
049	5431-8899		IC, 8 BIT SHIFT/STORAGE REG,74LS299 / U93,94	93	IC	P	1		B	P	EA	2					10	0	311-011
050	5418-1246		IC, OCTAL D TYPE F/F,TRI-ST 74LS374 / U12,45,46,114	99	IC	P	1		B	P	EA	4					10	0	311-011
051	5418-1203		IC, COUNTER, DUAL 4 BIT 74LS393 / U1,111,112,115	99	IC	P	1		C	P	EA	4					10	0	311-011
053	5418-1272		IC, SYNC 4 BIT UP/DOWN, 74LS669 / U59-62	99	IC	P	1		C	P	EA	4					10	0	311-011
056	5418-1275		IC, 8 BIT COMPARATOR (AM25LS2521) / U107,108	99	IC	P	1		B	P	EA	2					10	0	311-011
058	5418-1215		IC, 8 BIT SERIAL MULTIPLIER, 25LS14 / U95,96	92	II	P	1		B	P	EA	2					10	0	311-011
060	2501-6048-00		IC, PROM (DATA 0) W/2COM / U85	93		N	1		C	P	EA	1					10	0	311-011

EFFECTIVITY DATE: ALL

SINGLE LEVEL BILLS OF MATERIAL

PARENT PART: 2501-4701-01 • PROM BOARD ASSEMBLY UM: EA PROD CODE: 93 ECN: ZERO ASSEMBLY QTY: 1
ERC: SRCE CODE: A TYPE: 1 ABC: A PLAN CODE: F DATE: 07-NOV-82

ITEM NO	COMPONENT PART NUMBER	E R	DESCRIPTION / REMARKS	PR CD	COMM CODE	S C	T Y	S P	A B	P L	UM	EXTENDED QTY PER	START DATE	S/N	CLOSE DATE	S/N	OPR SEQ	LT OFF	STORES ACCOUNT
061	2501-6049-00		IC, PROM (DATA 1) W/2COM U91	93		N	1		C	P	EA	1					10	0	011-011
064	2501-6050-00		IC, PROM (B0-0) U32	93		N	1		C	P	EA	1					10	0	011-011
065	2501-6051-00		IC, PROM (B0-1) U20	93		N	1		C	P	EA	1					10	0	011-011
066	2501-6052-00		IC, PROM (B0-2) U38	93		N	1		C	P	EA	1					10	0	011-011
067	2501-6053-00		IC, PROM (B0-3) U26	93		N	1		C	P	EA	1					10	0	011-011
068	2501-6054-00		IC, PROM (B1-0) U31	93		N	1		C	P	EA	1					10	0	011-011
069	2501-6055-00		IC, PROM (B1-1) U19	93		N	1		C	P	EA	1					10	0	011-011
070	2501-6056-00		IC, PROM (B1-2) U37	93		N	1		C	P	EA	1					10	0	011-011
071	2501-6057-00		IC, PROM (B1-3) U25	93		N	1		C	P	EA	1					10	0	011-011
072	2501-6058-00		IC, PROM (B2-0) U30	93		N	1		C	P	EA	1					10	0	011-011
073	2501-6059-00		IC, PROM (B2-1) U18	93		N	1		C	P	EA	1					10	0	011-011
074	2501-6060-00		IC, PROM (B2-2) U36	93		N	1		C	P	EA	1					10	0	011-011
075	2501-6061-00		IC, PROM (B2-3) U24	93		N	1		C	P	EA	1					10	0	011-011
076	2501-6062-00		IC, PROM (B3-0) U29	93		N	1		C	P	EA	1					10	0	011-011
077	2501-6063-00		IC, PROM (B3-1) U17	93		N	1		C	P	EA	1					10	0	011-011
078	2501-6064-00		IC, PROM (B3-2) U35	93		N	1		C	P	EA	1					10	0	011-011
079	2501-6065-00		IC, PROM (B3-3) U23	93		N	1		C	P	EA	1					10	0	011-011
089	4383-0022		CAP, CER, .01UF, 100V, 20 PCT C2,4,6-15,17-22	99	CA	P	1		B	P	EA	18					10	0	011-011
090	4400-2050		CAP, CER, 0.1UF 50V 20 PCT C16	99	CA	P	1		A	P	EA	1					10	0	011-011
091	4400-2070		CAP, CER, 1.0UF 50V 20 PCT C5	99	CA	P	1		B	P	EA	1					10	0	011-011
092	4383-5066		CAP, TAN, 22UF 15V 10 PCT C1	99	CD	P	1		C	P	EA	1					10	0	011-011
093	4383-0001		CAP, CER, .005UF 50V 20 PCT C3	99	CA	P	1		C	P	EA	1					10	0	011-011
095	7498-0010		SOCKET, IC, LO-PRO (24 PIN) DIL XU16-39,69-92	92	ND	P	1		C	P	EA	28					10	0	011-011
096	6099-0475		RES, CMF, 47 1/4W 5 PCT R15	99	3B	P	1		C	P	EA	1					10	0	011-011

EFFECTIVITY DATE: ALL

S I N G L E L E V E L B I L L S O F M A T E R I A L

PARENT PART: 2501-4701-01 • PROM BOARD ASSEMBLY UM: EA PROD CODE: 53 ECN: ???? ASSEMBLY QTY: 1
ERC: SRCE CODE: A TYPE: 1 ABC: A PLAN CODE: F DATE: 07-NOV-83

ITEM NO	COMPONENT PART NUMBER	E R	DESCRIPTION / REMARKS	PR CD	COMM CODE	S C	T Y	S P	A R	P L	UM	EXTENDED QTY PER	START DATE	S/N	CLOSE DATE	S/N	OPR SEQ	LT OFF	STORES ACCOUNT
057	6099-1205		RES, CMP, 200 1/4W 5 PCT R5,6	99	RB		P	1	C	P	EA	2					10	0	011-011
058	6099-1245		RES, CMP, 240 1/4W 5 PCT R12	99	RB		P	1	C	P	EA	1					10	0	011-011
059	6099-2475		RES, CMP, 4.7K 1/4W 5 PCT R16	99	RB		P	1	C	P	EA	1					10	0	011-011
100	6099-1515		RES, CMP, 510 1/4W 5 PCT R4,13	99	RB		P	1	C	P	EA	2					10	0	011-011
101	6099-2105		RES, CMP, 1K 1/4W 5 PCT R2,3,7-9,11,14,17-19 R21-23	99	RB		P	1	C	P	EA	13					10	0	011-011
102	6099-3305		RES, CMP, 30K 1/4W 5 PCT R1	99	RB		P	1	C	P	EA	1					10	0	011-011
104	6100-0105		RES, CMP, 10 1/2W 5 PCT R20	99	RB		P	1	C	P	EA	1					10	0	011-011
107	6134-9002		RES ARRAY, 1K OHM 1/8W RP1 (LOCATION U44)	99	XO		P	1	S	C	P EA	1					10	0	011-011
109	8210-1112		TRANSISTOR, PNP SW, HI SPEED 2N3906 Q1	99	TC		P	1	S	C	P EA	1					10	0	011-011
111	4230-6703		CONN, HEADER, 34P, RT ANGLE PC MT J1	99	NB		P	1	C	P	EA	1					10	0	011-011

NOTES:

REV 1 INITIAL RELEASE ECN 2315
REV 2 REVISED PER ECN 2432
REV 4 REVISED PER ECN 2464
REV 5 REVISED PER ECN 2496
REV 6 REVISED PER ECN 2557
REV 7 REVISED PER ECN 2805

END OF REPORT

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EFFECTIVITY DATE: ALL

S I N G L E L E V E L B I L L S O F M A T E R I A L

PARENT PART: 2501-4702 * CARD ASSY, DISPLAY CONTROLLER UM: EA PROD CODE: 93 ECN: 2605 ASSEMBLY QTY: 1
ERC: SRCE CODE: A TYPE: 1 ABC: A PLAN CODE: F DATE: 07-NOV-83

ITEM NO	COMPONENT PART NUMBER	E R	DESCRIPTION	REMARKS	PR CD	COMM CODE	S C	T Y	S P	A B	P L	UM	EXTENDED QTY PER	START DATE	START S/N	CLOSE DATE	CLOSE S/N	OPR SEQ	LT OFF	STORES ACCOUNT
-A	2501-4702-1L		LIST OF MTL, DISPLAY CONTROLLER		93		D	*		C	U	EA	0					10	0	011-011
-B	2501-4702-1D		ASSY DWG, DISPLAY CONTROLLER		93		D	*		C	U	EA	0					10	0	011-011
-C	2501-4702-2D		LOGIC DIAGM, DISPLAY CONTROLLER		93		D	*		C	U	EA	0					10	0	011-011
-T	2501-3702A		ARTWORK, DISPLAY CONTROLLER	2	93	PD	D	*		C	U	EA	0					10	0	011-011
001	2501-0702		PWB, DISPLAY CONTROLLER		93	PA	P	1		B	P	EA	1					10	0	011-011
002	1762-3529		HANDLE ASSEMBLY, HEX BOARD		90	FO	P	1		B	P	EA	1					10	0	011-011
004	5418-1049		IC, NAND, QUAD 2 IN, 74S00	U31,79,97	99	ID	P	1	S	C	P	EA	3					10	0	011-011
005	5431-8408		IC, NAND, QUAD 2IN (74S03)	U117	99	IB	P	1		C	P	EA	1					10	0	011-011
006	5418-1050		IC, INVERTER, HEX 74S04	U99,102,107	99	ID	P	1	S	C	P	EA	3					10	0	011-011
007	5431-8440		IC, QUAD 2 IN POS AND, 74S08	U30,44,62,89	99	IB	P	1		C	P	EA	4					10	0	011-011
008	5418-1052		IC, AND, TRIPLE 3 IN POS, 74S11	U100	99	IB	P	1		C	P	EA	1					10	0	011-011
009	7498-0009		SOCKET, IC, LO-PRO (16 PIN) DIL	XU4	99	ND	P	1		C	P	EA	1					10	0	011-011
011	5431-8406		IC, FLIP-FLOP, DUAL D-TYPE, 74S74	U70,104,109	99	IB	P	1		B	P	EA	3					10	0	011-011
012	5431-8486		IC, QUAD 2 IN EXCLUSIVE OR, 74S86	U85	99	ID	P	1		C	P	EA	1					10	0	011-011
013	5431-8404		IC, FLIP-FLOP, DUAL JK, 74S112	U73,113	99	IC	P	1		C	P	EA	2					10	0	011-011
014	5418-1261		IC, DECODER, 3-8 LINES (74S138)	U105	99	IB	P	1		B	P	EA	1					10	0	011-011
015	5418-1271		IC, FLIP/FLOP, QUAD D-TYPE (74S175)	U91	99	ID	P	1		C	P	EA	1					10	0	011-011
017	5418-1268		IC, OCT TRI-STATE INV (74S240)	U112	99	IB	P	1		A	P	EA	1					10	0	011-011
018	5418-1269		IC, DUAL 4-1 LINE SEL/MPLX (74S253)	U119	99	IB	P	1		C	P	EA	1					10	0	011-011
019	5418-1270		IC, ARITH LOGIC/FUNC GENER (74S381)	U95	93	IB	P	1		B	P	EA	1					10	0	011-011
023	5431-0606		IC, NAND, QUAD 2 IN POS, 74LS00	U77,89	99	IC	P	1		C	P	EA	2					10	0	011-011
024	5431-0610		IC, NAND, TRIPLE 3 IN POS, 74LS10	U115	99	IC	P	1		C	P	EA	1					10	0	011-011
025	5431-0627		IC, TRIPLE 3 IN POS NOR, 74LS27	U94,98,106	99	IC	P	1		C	P	EA	3					10	0	011-011
026	5431-0674		IC, FLIP-FLOP, DUAL D-TYPE, 74LS74	U92,110	99	IC	P	1		C	P	EA	2					10	0	011-011

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EFFECTIVITY DATE: ALL

S I N G L E L E V E L B I L L S O F M A T E R I A L

PARENT PART: 2501-4702 * CARD ASSY, DISPLAY CONTROLLER UM: EA PROD CODE: 93 ECN: 2805 ASSEMBLY QTY: 1
ERC: SRCE CODE: A TYPE: 1 ABC: A PLAN CODE: F DATE: 07-NOV-83

ITEM NO	COMPONENT PART NUMBER	E R	DESCRIPTION / REMARKS	PR CD	COMP CODE	S C	T Y	S P	A H	P L	UM	EXTENDED QTY PER	START DATE	S/N	CLOSE DATE	S/N	OPR SEQ	LT OFF	STORES ACCOUNT
027	5431-8712		IC, FLIP-FLOP, DUAL J-K, 74LS112 U74,87,98	99	IC	P	1		C	P	EA	3					10	0	011-011
029	5431-8738		IC, DECODER, 3 TO 8 LINES, 74LS138 U61	99	IC	P	1		C	P	EA	1					10	0	011-011
030	5431-8764		IC, 8 BIT PARALLEL SH REG, 74LS164 U80-83	99	IC	P	1		C	P	EA	4					10	0	011-011
031	5418-1187		IC, SHIFT REG, 8 BIT 74LS166 U3,14-16,27-29,42, U53-55,60,65-67,84	99	IC	P	1		B	P	EA	16					10	0	011-011
032	5431-8774		IC, FLIP-FLOP, HEX D-TYPE, 74LS174 U68,93	99	IC	P	1		C	P	EA	2					10	0	011-011
034	5431-8844		IC, BUFFER OCT TRI-SET (74LS244) U63,64,78,114,116	93	IC	P	1		B	P	EA	5					10	0	011-011
035	5418-1195		IC, DUAL 5 INPUT POS NOR 74LS260 U86,111	99	IC	P	1		C	P	EA	2					10	0	011-011
036	5431-8899		IC, 8 BIT SHIFT/STORAGE REG,74LS299 U72,96	93	IC	P	1		B	P	EA	2					10	0	011-011
037	5418-1246		IC, OCTAL D TYPE F/F,TRI-ST 74LS374 U58,59,101,108,118	99	IC	P	1		B	P	EA	5					10	0	011-011
038	5418-1203		IC, COUNTER, DUAL 4 BIT 74LS393 U75,76	99	IC	P	1		C	P	EA	2					10	0	011-011
039	5418-1272		IC, SYNC 4 BIT UP/DOWN, 74LS669 U43,56,69,71	99	IC	P	1		C	P	EA	4					10	0	011-011
040	5418-1255		IC, 8 BIT UNIVERSAL REG, 25LS299 U1,2,40,41	92	IC	P	1		A	P	EA	4					10	0	011-011
041	2501-6000		IC, PROM, SYNC GENER U120	93	MR	P	1		C	P	EA	1					10	0	011-011
042	5418-1273		IC, OCT D-REG, TRI-ST (AM25LS2520) U57	93	IC	P	1		C	P	EA	1					10	0	011-011
043	5418-1216		IC, QUAD SERIAL ADDER/SUB, 25LS15 U17	99	IC	P	1		C	P	EA	1					10	0	011-011
045	5418-1256		IC, MEMORY, 1024X4 BIT (2114 150NS) U6-13,19-26,32-39, U45-52	92	IC	P	1		B	P	EA	32					10	0	011-011
047	5418-1149		IC, OP AMPL, LH0002CF U121	99	JA	P	1		B	P	EA	1					10	0	011-011
048	5418-1235		IC, VOLT REG, +5V (LM320H) U122	99	JB	P	1		C	P	EA	1					10	0	011-011
051	4400-2070		CAP, CER, 1.0UF 50V 20 PCT C1,2	99	CA	P	1		B	P	EA	2					10	0	011-011
052	4383-0022		CAP, CER, .01UF, 100V, 20 PCT C3-9,14-24	99	CA	P	1		B	P	EA	16					10	0	011-011
054	4383-4064		CAP, TAN, 1.0UF 35V C13	99	CD	P	1		C	P	EA	1					10	0	011-011
055	4383-50[illegible]		CAP, TAN, 15UF, 20 PCT, 25VDC C11	90	CD	P	1		B	P	EA	1					10	0	011-011
056	4383-5009		CAP, TAN, 6.8UF 35V 10 PCT C10,12	99	CD	P	1		C	P	EA	2					10	0	011-011

EFFECTIVITY DATE: ALL

S I N G L E L E V E L B I L L S O F M A T E R I A L

PARENT PART: 2501-4702 * CARD ASSY, DISPLAY CONTROLLER UM: EA PROD CODE: 92 ECN: 2805 ASSEMBLY QTY: 1
ERC: SRCE CODE: A TYPE: 1 ABC: A PLAN CODE: F DATE: 07-NOV-83

ITEM NO	COMPONENT PART NUMBER	E R	DESCRIPTION / REMARKS	PR CD	COMM CODE	S C	T Y	S P	A B	P L	UM	EXTENDED QTY PER	START DATE	START S/N	CLOSE DATE	CLOSE S/N	OPR SEQ	LT OFF	STORES ACCOUNT
059	8213-0071		TRANSISTOR, PNP, LOW FLR (PN4258) Q1	92	TC	P	1		C	P	EA	1					10	0	011-011
061	4300-3810		CHOKE, 150UH, 200MA, 10PCT L1	92	ZB	P	1		C	P	EA	1					10	0	011-011
064	4213-0034		CONN, JACK RCPTL MINI COAX J2	99	NI	P	1		R	P	EA	1					10	0	011-011
065	4230-6685		CONN, HEADER, 20P, RT ANGLE PC MT J1	99	ND	P	1		C	P	EA	1					10	0	011-011
067	8303-0022		CRYSTAL OSC, 19.6600 MHZ (HC18/U) Y1	93	CR	P	1		C	P	EA	1					10	0	011-011
069	4230-6740		KEY,POLARIZING (3M P/A 3518)	93	NC	X	1		*	P	EA	2					10	0	011-011
074	6099-0515		RES, CMP, 51 1/4W 5 PCT R21	99	RB	P	1		C	P	EA	1					10	0	011-011
076	6099-0685		RES, CMP, 68 1/4W 5 PCT R18,19	99	RB	P	1		C	P	EA	2					10	0	011-011
078	6099-1105		RES, CMP, 100 1/4W 5 PCT R5,6,22,23	99	RB	P	1		C	P	EA	4					10	0	011-011
080	6099-1275		RES, CMP, 270 1/4W 5 PCT R1,2	99	RB	P	1		C	P	EA	2					10	0	011-011
081	6099-1305		RES, CMP, 300 1/4W 5 PCT R16,20,24	99	RB	P	1		C	P	EA	3					10	0	011-011
083	6099-1685		RES, CMP, 680 OHM, 1/4W, 5 PCT R13	99	RB	P	1		C	P	EA	1					10	0	011-011
084	6099-1825		RES, CMP, 820 1/4W 5PCT R14	99	RB	P	1		C	P	EA	1					10	0	011-011
086	6099-2105		RES, CMP, 1K 1/4W 5 PCT R3,4,7-12	99	RB	P	1		C	P	EA	8					10	0	011-011
087	6099-3105		RES, CMP, 10K 1/4W 5 PCT R15	99	RB	P	1		C	P	EA	1					10	0	011-011
088	6099-4105		RES, CMP, 100K 1/4W 5 PCT R17	99	RB	P	1		C	P	EA	1					10	0	011-011

NOTES:

REV 1 INITIAL RELEASE
REV 2 REVISED PER ECN 2115/2135
REV 3 REVISED PER ECN 2199
REV 4 REVISED PER ECN 2212
REV 5 REVISED PER ECN 2243
REV 5A REVISED PER ECN 2274
REV 6 REVISED PER ECN 2346
REV 7 REVISED PER ECN 2428
REV 8 REVISED PER ECN 2495
REV 9 REVISED PER ECN 2805

END OF REPORT

TIME/DATA

DR	J. H. SHRIGLEY	8-1-78			
CHK	J. H. SHRIGLEY	8-1-78			
APPO					
APPO			2502/2503	2501-2000	
APPO			USED ON	NEXT ASSY	

DRAWING NO	2501-4703-1L	REV 9
SHEET 1 OF [illegible]		
TITLE	CARD ASSEMBLY, UNIBUS INTERFACE	

SYM	REVISION DESCRIPTION	DATE	APPO	SYM	REVISION DESCRIPTION	DATE	APPO
1	INITIAL RELEASE	9-6-78	JHS	9	TRACKING PER ECN 2559	[illegible]	A VORA
1A	REVISED PER EDITORIAL	1-5-79	JHS				
1B	REVISED PER EDITORIAL	1-12-79	[illegible]				
2	REVISED PER ECN 2105	3-7-79	[illegible]				
3	REVISED PER ECN 2194/2205/2214	7-6-79	[illegible]				
4	REVISED PER ECN 2306	2-4-80	[illegible]				
5	TRACKING PER ECN 2355	5-27-80	[illegible]				
6	REVISED PER ECN 2389	26 AUG 80	A. VORA				
7	REVISED PER ECN 2433	04-AUG-81	J Trevino				
8	REVISED PER ECN 2457	[illegible]-81	J Trevino				

RECORD OF REVISION OF EACH SHEET

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
1	1	1	1																												
1A	1A	1A	1A																												
1B	1A	1A	1B																												
2	1A	1A	2																												
3	3	3	3																												
4	3	4	4																												
5	3	4	4																												
6	3	4	6																												
7	3	4	7																												
8	3	4	8																												
9	3	4	8																												

0000-0015 REV 1

TIME/DATA

SHEET 2

TITLE	CARD ASSEMBLY, UNIBUS INTERFACE	DRAWING NO	2501-4703-1L	REV	3

ITEM	PART NUMBER	QTY	NOMENCLATURE	REFERENCE DESIGNATION	NOTE
A					
B	2501-4703-1D	REF	CARD ASSEMBLY		
C	2501-4703-2D	REF	LOGIC DIAGRAM		
D					
T	2501-0703A	REF	ARTWORK, PWB		
1	2501-0703	1	PWB, UNIBUS INTERFACE		
2	1762-3529	1	HANDLE ASSEMBLY (W/RIVETS)		
3					
4	5418-1049	9	IC, NAND, QUAD 2 IN (74S00)	U6,16,25,38,41,46,51,77,87	
5	5431-8416	2	IC, NOR, QUAD 2 IN (74S02)	U7,97	
6	5431-8408	2	IC, NAND, QUAD 2 IN (74S03)	U18,74	
7	5418-1050	2	IC, HEX INVERTER (74S04)	U17,43	
8	5431-8440	6	IC, AND, QUAD 2 IN POS (74S08)	U5,14,19,26,50,86	
9	5418-1052	1	IC, AND, 3 IN POS (74S11)	U3	
10	5431-8405	2	IC, NAND, DUAL 4 IN POS (74S20)	U53,62	
11	5431-8430	1	IC, NAND, 8 IN POS (74S30)	U33	
12	5431-8404	1	IC, FLIP/FLOP, DUAL J-K (74S112)	U31	
13	5431-8406	2	IC, FLIP/FLOP, DUAL D-TYPE (74S74)	U13,37	
14	5431-8415	4	IC, NAND, 13 IN POS (74S133)	U10,11,12,36	
15	5418-1251	2	IC, 3-8 LINE DEC/MPLX (74S138)	U88,100	
16	5431-8414	1	IC, NAND, DUAL 4 POS (74S140)	U52	
17					
18					
19					
20					

REVISIONS

SYM	DESCRIPTION
1	INITIAL RELEASE
1A	REVISED QTY (ITEMS 8 & 12)
3	ADDED (ITEM 13) PER ECN 2194,2205

NOTES

0000-0016 REV 1

TIME/DATA

SHEET 3

TITLE	CARD ASSEMBLY, UNIBUS INTERFACE	DRAWING NO	2501-4703-1L	REV	1

ITEM	PART NUMBER	QTY	NOMENCLATURE	REFERENCE DESIGNATION	NOTE
21					
22	5431-8604	3	IC, HEX INVERTER (74LS04)	U34,47,102	
23	5431-8602	1	IC, NOR, QUAD 2 IN POS (74LS02)	U65	
24	5431-8620	1	IC, NAND, DUAL 4 IN POS (74LS20)	U101	
25	5431-8621	1	IC, AND, DUAL 4 IN POS (74LS21)	U54	
26					
27	5431-8674	13	IC, FLIP/FLOP, DUAL D-TYPE (74LS74)	U4, ,20,21,27, ,40,49,61,63,64,73,75,76,85	
28	5431-8712	3	IC, FLIP/FLOP, DUAL J-K (74LS112)	U28,30,39	
29	5431-8723	2 -	IC, MONOSTAB, MVB RETRIG (74LS123)	U15,29	
30	5418-1182	1	IC, QUAD BUS BUFFER (74LS125)	U42	
31					
32	5431-8757	4	IC, QUAD 2→1 LINE DATA SEL (74LS157)	U79,80,91,92	
33	5418-1295	5	IC, SYNC 4 BIT COUNTER (74LS163A)	U56,57,58,69,70	
34					
35	5431-8844	10	IC, BUFFER OCT TRI-SET (74LS244)	U32,44,45,55,60,67,68,89,103,104	
36	5418-1246	8	IC, OCT D-TYPE F/F TRI-ST (74LS374)	U59,66,71,72,78,83,84,90	
37					
38					
39	5418-1274	1	IC, DUAL MONOSTABLE MV (9602)	U8	
40	5418-1130	12	IC, QUAD BUS TRANSC O.C. (8T38)	U81,82,93,94,95,96,98,99,105,106,107,108	
41					
42					
43					
44					
45					

REVISIONS

SYM	DESCRIPTION
1	INITIAL RELEASE
1A	REVISED QTY (ITEM 35)
3	REVISED PER ECN 2194/2205 (QTY ITEM 27)
4	REVISED PER ECN 2306 (DELETE/ADD ITEM 33)

NOTES

1. PACK LOCATIONS U22,23,24,35,48 ARE RESERVED FOR ADDRESS JUMPERING.
2. U1,2 ARE SPARE LOCATIONS.
3. U9 IS RESERVED FOR TEST POINTS.

0000-0018 REV 1

TIME/DATA

SHEET 4

TITLE	CARD ASSEMBLY, UNIBUS INTERFACE	DRAWING NO	2501-4703-1L	REV	8

ITEM	PART NUMBER	QTY	NOMENCLATURE	REFERENCE DESIGNATION	NOTE
46					
47					
48	4383-0020	2	CAP, CER, 1000PF, 100V	C7,37	
49	4383-3010	2	CAP, MIC, 50PF, 500V, 5 PCT	C35,36	
50	4383-0019	4	CAP, CER, 510PF, 100V, 5 PCT	C4,18,21,6	
51	4383-0018	1	CAP CER, 91PF, 100V, 5 PCT	C10	
52					
53	4400-2070	4	CAP, CER, 1.0UF, 50V, 20 PCT	C32,33,34,38	
54	4383-0022	25	CAP, CER, .01UF, 100V, 20 PCT	C1,2,3,5,8,9,11,12,13,15,16,19,20,22,23,39	
55				24,25,26,27,28,29,30,31,17	
56	4383-7010	1	CAP, MYLAR, .047UF, 50V, 20 PCT	C14	
57	6099-1185	2	RES, CMP, 180 OHM, 1/4W, 5 PCT	R21,23	
58	6099-1395	2	RES, CMP, 390 OHM, 1/4W, 5 PCT	R22,24	
59	6099-1755	14	RES, CMP, 750 OHM, 1/4W, 5 PCT	R3,6,10,11,12,13,16,17,18,19,20,25,2 4	
60					
61	6099-2515	1	RES, CMP, 5.1K, 1/4W, 5 PCT	R8	
62	6099-2625	1	RES, CMP, 6.2K, 1/4W, 5 PCT	R5	
63	6099-3155	3	RES, CMP, 15K, 1/4W, 5 PCT	R1,7,9	
64	6099-1625	1	RES, CMP, 620 OHM, 1/4W, 5 PCT	R14	
65	6099-1825	1	RES, CMP, 820 OHM, 1/4W, 5 PCT	R15	
66	6099-1105	3	RES, CMP, 100 OHM, 1/4W, 5 PCT	R26,27,28	
67	6099-3125	1	RES, CMP, 12K, 1/4W, 5 PCT	R29	
68					
69	7910-2001	1	SWITCH, 2 POS, DPST DIP ROCKER	S1 (76RSB02S)	
70					

REVISIONS

SYM	DESCRIPTION
1	INITIAL RELEASE
1A	REVISED QTY (ITEMS 50 & 53)
1B	REVISED PER EDITORIAL (ITEMS 56 & 59)
2	REVISED PER ECN 2105 (QTY CHANGE ITEMS 48 & 66)
3	REVISED PER ECN 2214 (DELETED/ADDED ITEMS 48,50,51,
-	& 54)
4	REVISED PER ECN 2306 (CHANGED QTY ITEM 54)
6	REVISED PER ECN 2399 (ADDED ITEM 67 & QTY CHANGE
-	ITEM 53)

REVISIONS

SYM	DESCRIPTION
7	REVISED PER ECN 2433 (DELETE/ADD ITEM 67, QTY CHANGE
-	ITEM 54)
8	REVISED PER ECN 2457 (ADDED ITEM 69)

0000-0018 REV 1

GenRad

					DRAWING NO	2501-4705-1L	8
DR	J. SHRIGLEY	DATE 10-2-73				SHEET 1 OF 3	REV
CHK	J. SHRIGLEY	10-2-78			TITLE	PRINTER INTERFACE BOARD (T-80)	
APPD							
APPD			2502/2503	2501-2003			
APPD			USED ON	NEXT ASSY			

SYM	REVISION DESCRIPTION	DATE	APPD	SYM	REVISION DESCRIPTION	DATE	APPD
1	INITIAL RELEASE	10-11-78	[signature]				
2	REVISED PER ECN 2097 & 2114	1-5-79	[signature]				
3	REVISED PER ECN 2167	4-30-79	[signature]				
3A	RE-ISSUED PER ECN 2167	8-16-79	[signature]				
4	REVISED PER ECN 2244	9-24-79	[signature]				
5	REVISED PER ECN 2290	1-22-80	[signature]				
6	REVISED PER ECN 2317	16 MAY 80	A. VORA				
7	REVISED PER ECN 2445	26 MAY 81	A. VORA				
8	REVISED PER ECN 2524	27 JAN 82	A. VORA				

RECORD OF REVISION OF EACH SHEET

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
1	1	-																													
2	2	-																													
3	3	-																													
3A	3A	-																													
4	4	-																													
5	5	-																													
6	5	6																													
7	7	6																													
8	8	8																													

0000-0015 REV 1

GenRad

SHEET 2

TITLE	PRINTER INTERFACE BOARD (T-80)	DRAWING NO	2501-4705-1L	REV	8

ITEM	PART NUMBER	QTY	NOMENCLATURE	REFERENCE DESIGNATION	NOTE
-A					
-B	2501-4705-10	REF	CARD ASSEMBLY		
-C	2501-4705-20	REF	SCHEMATIC DIAGRAM		
-D	2501-2067-40	REF	WIRELIST		
-T	2501-0705A	REF	ARTWORK, PWB		
1	2501-0705	1	PWB, PRINTER INTERFACE		
2					
3	5418-1257	1	IC, OCT TRI-ST INV. (74LS240)	U1	
4	5793-2002	2	NUT, KEP #6		
5	5432-1010	1	IC, VOLT REG, 5V (LM309K)	VR1	
6	8433-9006	2	SLEEVING, ELECT. TEFL, 18 AWG, 1/16" LONG		
7	6093-0030	1	RELAY, 5VDC, DPST .	K1	
8	7043-1039	2	SCREW, PAN HD, #6-32 X 7/16		
9	4400-2050	1	CAP, CER, 0.1UF	C2	
10	4383-5065	1	CAP, TAN, 1.0UF	C1	
11	6099-1205	1	RES, CMP, 200, 1/4W, 5 PCT	R1	
12	6099-2205	9	RES, CMP, 2K, 1/4W, 5 PCT	R2,3,4,5,6,7,8,11,12	
13	6099-2105	2	RES, CMP, 1K, 1/4W, 5 PCT	R9,10	
14	6099-1755	1	RES, CMP 750, 1/4W, 5 PCT	R13	
15	4230-6694	1	CONN, PLUG, 34 PIN RT ANGLE, W/EJECTOR	J1	
16	4383-0001	1	CAP, CER, .005UF, 50V, 20 PCT	C3	
17	4213-0173	1	CONN, STR HDR (20 PIN)	J3	
18	8433-8003	A/R	THERMAL JOINT COMPOUND		
19	7923-0059	14	TERM, BIFURCATED ([illegible])		
20	5383-4004	1	HEATSINK, (TO-3)		

REVISIONS

SYM	DESCRIPTION
1	INITIAL RELEASE
2	REVISED PER ECN 2097 & 2114 (ADDED ITEMS 2,5,6,8,12
	AND 18)
3	REVISED PER ECN 2167 (ADDED ITEMS 11,14)
3A	RE-ISSUED PER ECN 2167 (ITEM 8 CHANGED & ITEM 16 ADD)
4	REVISED PER ECN 2244
5	REVISED PER ECN 2290 (DELETE/ADD ITEMS 14 & 15)
7	REVISED PER ECN 2445 (DELETE/ADD ITEM 15)
8	REVISED PER ECN 2524 (DELETE ITEM 2 & ADD ITEM -D)

NOTES

0000-0016 REV 1

GenRad

SHEET 3

TITLE PRINTER INTERFACE BOARD (T-80)	DRAWING NO 2501-4705-1L	REV 8

ITEM	PART NUMBER	QTY	NOMENCLATURE	REFERENCE DESIGNATION	NOTE
21	4383-0012	1	CAP, CER., .002UF	C4	
22					
23	2501-2067	1	HARNESS ASSEMBLY		
24					
25					
26					
27					
28					
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37					
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44					
45					

REVISIONS

SYM	DESCRIPTION
6	REVISED PER ECN 2317 (ADDED ITEM 21)
8	REVISED PER ECN 2524 (ADDED ITEM 23)

NOTES

0000-8016 REV 1

PRINTED 02-NOV-83 15:38 GENRAD - VAD BML VERSION 08-FEB-82 PAGE 1

EFFECTIVITY DATE: ALL

S I N G L E L E V E L B I L L S O F M A T E R I A L

PARENT PART: 2501-4711-00 • MUX A/D SAMPLE & HOLD UM: EA PROD CODE: 93 ECN: 2790 ASSEMBLY QTY: 1
ERC: SRCE CODE: A TYPE: 1 ABC: * PLAN CODE: F DATE: 27-OCT-83

ITEM NO	COMPONENT PART NUMBER	E R	DESCRIPTION REMARKS	PR CD	COMM CODE	S C	T Y	S P	A B	P L	UM	EXTENDED QTY PER	START DATE	S/N	CLOSE DATE	S/N	OPR SEQ	LT OFF	STORES ACCOUNT
-A	2501-4711-00-1L		LIST OF MTL, MUX A/D SAMP & HOLD	93		D	*		*	U	EA	0					10	0	011-011
-B	2501-4711-00-1D		ASSY DWG, MUX A/D SAMP & HOLD	93		D	*		*	U	EA	0					10	0	011-011
-C	2501-4711-00-2D		SCHEM DIAGM, MUX A/D SAMP & HOLD	93		D	*		*	U	EA	0					10	0	011-011
-T	2501-0711A-00		ARTWORK, MUX A/D SAMP/HOLD	93	PB	D	*		*	U	EA	0					10	0	011-011
001	2501-0711-00		PWB, MUX A/D SAMP/HOLD, 4 LYR, 2 W	93	PA	P	1		B	P	EA	1					10	0	011-011
003	5432-1106		IC,OP AMP,FAST SAMP/HOLD (HA2425-5) U1-8	93	JA	P	1		B	P	EA	8					10	0	011-011
004	5431-7217		IC, QUAD ANALOG SW ARRAY, MPX/DRVR U9-12	93	JG	P	1		B	P	EA	4					10	0	011-011
007	5418-1149		IC, OP AMPL, LH0002CH U14	99	JA	P	1		B	P	EA	1					10	0	011-011
009	5432-1105		IC, OP AMPL, HI-SLEW (HA2517) U13	93	JA	P	1		A	P	EA	1					10	0	011-011
011	5418-1022		IC, AND, QUAD 2 IN POS, 7408 U17	99	JA	P	1	S	C	P	EA	1					10	0	011-011
013	7498-0009		SOCKET, IC, LO-PRO (16 PIN) DIL XU9-12	99	ND	P	1		C	P	EA	4					10	0	011-011
015	5429-6009		A/D CONVERTER, 12 BIT (ADC-EH12B3) U15	93	JD	P	1		A	P	EA	1					10	0	011-011
017	4383-0020		CAP, CER, 1000PF, 100V, 5 PCT C22-29	99	CA	P	1		C	P	EA	8					10	0	011-011
018	4450-6534		CAP, TANT, 15UF, 25V, 10 PCT C9-14, C16-18	93	CD	P	1		C	P	EA	9					10	0	011-011
019	4700-0900		CAP, MIC, 750PF 300V 5 PCT C1-8	98	CF	P	1		C	P	EA	8					10	0	011-011
020	4383-3007		CAP, MIC, 1000PF 100V C19	99	CF	P	1		C	P	EA	1					10	0	011-011
023	6003-0027		RES, VAR, 20 OHM R53	99	QF	P	1		C	P	EA	1					10	0	011-011
024	6003-0028		RES, VAR, 200 R52	99	QF	P	1		C	P	EA	1					10	0	011-011
029	6099-1105		RES, CMP, 100 1/4W 5 PCT R42	99	RB	P	1		C	P	EA	1					10	0	011-011
030	6250-0619		RES, 619 OHM, 1/8W, 1 PCT R39	93	RC	P	1		C	P	EA	1					10	0	011-011
031	6099-2205		RES, CMP, 2.0K 1/4W 5 PCT R21-28	99	RB	P	1		C	P	EA	8					10	0	011-011
032	6250-1365		RES, 3.65K OHM, 1/8W, 1 PCT R29,30	93	RC	P	1		C	P	EA	2					10	0	011-011
033	6099-2395		RES, CMP, 3.9K 1/4W 5 PCT R11-18, R31-38	99	RB	P	1		C	P	EA	16					10	0	011-011
034	6099-9475		RES, CMP, 4.7 OHM, 1/4W, 5 PCT R9,10,19,20,43,44,	99	RB	P	1		C	P	EA	8					10	0	011-011

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EFFECTIVITY DATE: ALL

S I N G L E L E V E L B I L L S O F M A T E R I A L

PARENT PART: 2501-4711-00 • MUX A/D SAMPLE & HOLD UM: EA PROD CODE: 93 ECN: 2790 ASSEMBLY QTY: 1
ERC: SRCE CODE: A TYPE: I ABC: A PLAN CODE: F DATE: 27-OCT-83

ITEM NO	COMPONENT PART NUMBER	E R	DESCRIPTION / REMARKS	PR CD	COMM CODE	S C	T Y	S P	A B	P L	UM	EXTENDED QTY PER	START DATE	S/N	CLOSE DATE	S/N	OPR SEQ	LT OFF	STORES ACCOUNT
036	6099-2105		RES, CMP, 1K 1/4W 5 PCT R57-64	99	RB	P	1		C	P	EA	8					10	0	011-011
037	6099-3245		RES, CMP, 24K 1/4W 5 PCT R41	99	RB	P	1		C	P	EA	1					10	0	011-011
038	6250-0549		RES, 549 OHM, 1/8W, 1 PCT R40	93	RC	P	1		C	P	EA	1					10	0	011-011
039	5000-1250		SHIELDING BEAD, FERRITE FB1	93	HV	P	1		C	P	EA	1					10	0	011-011
043	6250-1115		RES, 1.15K, 1/8W, 1 PCT (FILM) R46	93	RC	P	1		C	P	EA	1					10	0	011-011
044	6250-1200		RES, FLM, 2.00K 1/8W 1 PCT R47,49	99	RC	P	1		C	P	EA	2					10	0	011-011
046	8213-0065		TRANSISTOR, NPN, LOW PWR 2N4400 Q2	92	TC	P	1		C	P	EA	1					10	0	011-011
047	8213-0066		TRANSISTOR, PNP, LOW PWR 2N4402 Q1	92	TC	P	1		C	P	EA	1					10	0	011-011
050	7923-0009		TERMINAL, POST .025SQ .328H .445L TP1-34	99		X	3		B	U	EA	33					10	0	011-011
053	1762-3601		HANDLE, CARD EXTRACTOR	99	FO	P	1		C	P	EA	2					10	0	011-011
056	4250-1305		SOCKET, MINIATURE, COMP LEAD	93	NH	P	5		C	P	EA	26					10	0	011-011
059	6083-1009		DIODE, ZENER 6.8V (1N957B) CR9	99	KD	P	1	S	C	P	EA	1					10	0	011-011
061	6098-0026		DIODE, ZENER, 10.0V (1N4740A) CR1-8	99	KD	P	1	S	C	P	EA	8					10	0	011-011
063	6083-1084		DIODE, ZENER 5.1V (1N4733) CR10	99	KD	P	1		C	P	EA	1					10	0	011-011
065	6088-0033		DIODE, ZENER, 6.8V, 1N5235B CR11-26	99	KD	P	1		C	P	EA	16					10	0	011-011

NOTES:

REV 3 REVISED PER ECN 2392
REV 4 REVISED PER ECN 2429
REV 5 REVISED PER ECN 2741
REV 6 REVISED PER ECN 2790

END OF REPORT

GenRad

(MASTER)

DR	CHUCK ZIEGLER	DATE 4-2-80		
CHK	STEVE BURROWS	4-2-80		
APPD				
APPD			8 CH ADS	
APPD			USED ON	NEXT ASSY

DRAWING NO	2501-4712-00-1L	2
	SHEET 1 OF 4	REV
TITLE	CARD ASSEMBLY ADS DIGITAL BOARD NO. 1	

SYM	REVISION DESCRIPTION	DATE	APPD	SYM	REVISION DESCRIPTION	DATE	APPD
1	INITIAL RELEASE	4-3-80	[signature]				
1A	REVISED PER ECN 2367 (INFO ONLY)	21MAY80	...ORA				
2	REVISED PER ECN 2414	2-2-81	[signature]				

RECORD OF REVISION OF EACH SHEET

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
1	1	1	1																												
1A	1	1A	1																												
2	1	2	1																												

0000-0012 REV 1

GenRad

(MASTER)

SHEET 2

TITLE	CARD ASSEMBLY ADS DIGITAL BOARD NO. 1	DRAWING NO	2501-4712-00-1L	REV 1

ITEM	PART NUMBER	QTY	NOMENCLATURE	REFERENCE DESIGNATION	NOTE
-A					
-B	2501-4712-00-10	REF	CARD ASSEMBLY DRAWING		
-C	2501-4712-00-20	REF	LOGIC DIAGRAM		
-T	2501-0712A-00	REF	ARTWORK		
-					
1					
2	2501-0712-00	1	PRINTED WIRING BOARD		
3					
4					
5					
6	4400-2070	6	CAP, 1UF, 50V, 20 PCT	C1-6	
7					
8	4383-0002	67	CAP, .01UF, 50V, 20 PCT	C7-73	
9					
10					
11					
12	6099-2105	5	RES, 1K, 1/4W, 5 PCT	R1-5	
13	6099-0515	2	RES, 51 OHM, 1/4W, 5 PCT	R6,7	
14					
15					
16	1762-3601	6	HANDLE & RIVETS		
17					
18	7573-0022	4	SPACER		
19					
20	7243-5002	4	SCREW, NYLON, 4-40		

REVISIONS

SYM	DESCRIPTION
1	INITIAL RELEASE

NOTES

0000-0016 REV 1

GenRad

(MASTER)
SHEET 3

TITLE	DRAWING NO	REV
CARD ASSEMBLY ADS DIGITAL BOARD NO. 1	2501-4712-00-1L	2

ITEM	PART NUMBER	QTY	NOMENCLATURE	REFERENCE DESIGNATION	NOTE
21					
22					
23	5418-1033	8	IC, DECODER (7442)	U7,46,59-64	
24					
25	5418-1143	14	IC, 4 BIT UP/DOWN COUNT. (74193)	U5,6,8,15,21,26,47,48,49,53,54,57,58,75	
26					
27	5418-1067	7	IC, FLIP FLOP (7474)	U18,20,27-31	
28	5418-1049	1	IC, 2 INPUT NAND (74S00)	U11	
29	5418-1064	1	IC, 2 INPUT NAND GATE (7400)	U16	
30					
31	5418-1025	1	IC, INVERTER (7404)	U32	
32	5418-1050	1	IC, INVERTER (74S04)	U12	
33	5418-1146	4	IC, 4 BIT FULL ADDER (74283)	U4,9,41,76	
34					
35	5418-1017	2	IC, 2 INPUT NAND (743.	U13,14	
36					
37	5418-1058	1	IC, 2 INPUT AND (74H08)	U17	
38					
39	5418-1032	7	IC, HEX FLIP FLOP (74174)	U33,34,35,40,42,51,55	
40					
41	5418-1065	16	IC, 2 INPUT NAND GATE (7403)	U19,22,36-39,65-74	
42					
43	6134-9006	1	IC, PULL UP RES, 1K	U24	
44					
45	5418-1150	1	IC, PROM, ADDR OFFSET LSB (IM5603A)	U25	

REVISIONS

SYM	DESCRIPTION
1	INITIAL RELEASE
1A	REVISED PER ECN 2367 (INFO ONLY) (DELETE/ADD ITEM 28
-	WAS 5431-8600 IS 5418-1049)
2	REVISED PER ECN 2414 (ITEM 31 QTY CHANGE/ITEM 32
-	ADD)

NOTES

0000-0016 REV 1

GenRad

(MASTER)
SHEET 4

TITLE	DRAWING NO	REV
CARD ASSEMBLY ADS DIGITAL BOARD NO. 1	2501-4712-00-1L	1

ITEM	PART NUMBER	QTY	NOMENCLATURE	REFERENCE DESIGNATION	NOTE
46	5418-1151	1	IC, PROM, ADDR OFFSET MSB (IM5603A)	U10	
47	5418-1031	1	IC, FLIP FLOP (74175)	U23	
48	5418-1176	1	IC, 2 INPUT AND/OR INVERT (74S51)	U1	
49					
50	5418-9007	1	IC, OSCILLATOR, 4.0 MHZ (CO-238)	U3	
51					
52	5418-1030	5	IC, 4 BIT BINARY COUNTER (74161)	U44,45,50,52,56	
53					
54	5418-1060	1	IC, 2 INPUT NOR (7402)	U43	
55					
56	5418-9008	1	IC, OSCILLATOR, 4.096 MHZ (CO-238)	U2	
57					
58					
59					
60					
61					
62					
63					
64					
65					
66					
67					
68					
69					
70					

REVISIONS

SYM	DESCRIPTION
1	INITIAL RELEASE

NOTES

0000-0016 REV 1

EFFECTIVITY DATE: ALL

S I N G L E L E V E L B I L L S O F M A T E R I A L

PARENT PART: 2501-4713-00 * ADS DIGITAL BOARD #2 UM: EA PROD CODE: 93 ECN: 2593 ASSEMBLY QTY: 1
ERC: SRCE CODE: A TYPE: 1 ABC: B PLAN CODE: P DATE: 03-MAY-82

ITEM NO	COMPONENT PART NUMBER	E R	DESCRIPTION / REMARKS	PR CD	COMM CODE	S C	T Y	S P	A H	P L	UM	EXTENDED QTY PER	START DATE	START S/N	CLOSE DATE	CLOSE S/N	OPR SEQ	LT OFF	STORES ACCOUNT
-A	2501-4713-00-1L		LIST OF MTL, ADS DIGITAL BD #2	93		D	*		*	U	EA	0					10	0	011-011
-B	2501-4713-00-1D		ASSY DWG, ADS DIGITAL BD #2	93		D	*		*	U	EA	0					10	0	011-011
-C	2501-4713-00-2D		SCHEM DIAGM, ADS DIGITAL BD #2	93		D	*		*	U	EA	0					10	0	011-011
-T	2501-0713A-00		ARTWORK, ADS DIGITAL BD #2	93		D	*		*	U	EA	0					10	0	011-011
002	2501-0713-00	*	PWB, ADS DIGITAL BD #2, 8-CH	93		P	1		B	P	EA	1					10	0	011-011
006	4400-2070		CAP, CER, 1.0UF 50V 20 PCT C1-C6	99		P	1		C	P	EA	6					10	0	011-011
008	4383-0002		CAP, CER, 0.01UF, 50V, .20 PCT C7-C70	99		P	1		C	P	EA	64					10	0	011-011
011	6099-0515		RES, CMP, 51 1/4W 5 PCT R17	99		P	1		C	P	EA	1					10	0	011-011
012	6099-2105		RES, CMP, 1K 1/4W 5 PCT R1-3,R5,R7-16	99		P	1		C	P	EA	14					10	0	011-011
013	6099-1105		RES, CMP, 100 1/4W 5 PCT R18	99		P	1		C	P	EA	1					10	0	011-011
014	6099-1335		RES, CMP, 330 1/4W 5 PCT R19	99		P	1		B	P	EA	1					10	0	011-011
016	1762-3601		HANDLE, CARD EXTRACTOR	99		P	1		B	P	EA	6					10	0	011-011
018	7573-0022		SPACER, RD, 4-40 X 3/8LG	99		P	1		C	P	EA	3					10	0	011-011
020	7043-5002		SCREW, BIND HD, NYLON 4-40 X 3/8LG	99		X	3		C	U	EA	3					10	0	011-011
023	5418-1067		IC, FLIP-FLOP, DUAL D-TYPE, 7474 U1,2,3,5,29,31,34,35 U36,47,50,51,62	99		P	3	S	C	P	EA	13					10	0	011-011
025	5418-1143		IC, 4 BIT UP/DOWN COUNTER U4,7,16,17,22,28,37, U48,53,55,57	90		P	1		C	P	EA	11					10	0	011-011
027	5418-1064		IC, NAND, QUAD 2 IN POS, 7400 U11,15,19	99		P	1	S	C	P	EA	3					10	0	011-011
029	5418-1059		IC, NAND, TRIPLE 3 IN POS, 7410 U6,8	99		P	1	S	C	P	EA	2					10	0	011-011
031	5418-1065		IC, NAND, QUAD 2 IN OPEN COL, 7403 U14,42,52,54,56,58, U59,60	99		P	1	S	C	P	EA	8					10	0	011-011
033	5418-1058		IC, AND, QUAD, 2 IN POS, 74H08 U12,20,30	99		P	1	S	C	P	EA	3					10	0	011-011
035	5418-1016		IC, EXCLUSIVE-NOR, QUAD, 8242 U24,27,38,49	99		P	1	S	C	P	EA	4					10	0	011-011
037	5418-1025		IC, INVERTER, HEX, 7404 U13,32,33,40,43,45	99		P	1	S	C	P	EA	6					10	0	011-011
039	5418-1066		IC, NAND BUFFER, DUAL 4 IN, 7440 U63	90		P	1		C	P	EA	1					10	0	011-011

EFFECTIVITY DATE: ALL

S I N G L E L E V E L B I L L S O F M A T E R I A L

PARENT PART: 2501-4713-00 * ADS DIGITAL BOARD #2 UM: LA PROD CODE: 93 ECN: 2593 ASSEMBLY QTY: 1
ERC: SRCE CODE: A TYPE: 1 ABC: B PLAN CODE: P DATE: 03-MAY-82

ITEM NO	COMPONENT PART NUMBER	E R	DESCRIPTION / REMARKS	PR CD	COMM CODE	S C	T Y	S P	A R	P L	UM	EXTENDED QTY PER	START DATE	S/N	CLOSE DATE	S/N	OPR SEQ	LT OFF	STORES ACCOUNT
041	5418-1139		IC, HEX BUS RECEIVER, 8T37 U67,68,70,72,74,76	99		P	1		C	P	EA	6					10	0	011-011
043	5418-1060		IC, NOR, QUAD 2 IN POS, 7402 U10,78	99		P	3	S	C	P	EA	2					10	0	011-011
045	5418-1074		IC, BUFFERS/DRIVERS, HEX O.C., 7417 U69,71,75	90		P	1	S	C	P	EA	3					10	0	011-011
048	6134-9006		IC, RES, PULL UP, 1K OHM U73	99		P	1		C	P	EA	1					10	0	011-011
050	5418-1017		IC, NAND, BUFFER, 2 IN POS, 7437 U18,21	99		P	1	S	C	P	EA	2					10	0	011-011
052	5418-1031		IC, FLIP-FLOP, QUAD D-TYPE, 74175 U26	99		P	1	S	C	P	EA	1					10	0	011-011
054	5418-1032		IC, FLIP-FLOP, HEX D-TYPE, 74174 U25,46	90		P	3	S	C	P	EA	2					10	0	011-011
056	5418-1033		IC, DECODER, BCD-DECIMAL, 7442 U64,65	99		P	1	S	C	P	EA	2					10	0	011-011
058	5418-1037		IC, AND-OR-INV, 2-WIDE 2IN, 74H51 U61	99		P	1	S	C	P	EA	1					10	0	011-011
060	5418-0779		IC, AND, TRIPLE 3 IN POS, 74H11 U66	99		P	1	S	C	P	EA	1					10	0	011-011
062	5431-0712		IC, FLIP-FLOP, DUAL J-K, 74LS112 U81	99		P	3		C	P	EA	1					10	0	011-011
064	5431-0425		I.C., ASYNCHRONOUS FI-FO MEMORIES U39,41,44	93		P	1		C	P	EA	3					10	0	011-011

NOTES:

REV 1 INITIAL RELEASE
REV 1A REVISED PER ECN 2369
REV 2 TRACKING PER ECN 2379
REV 3 TRACKING PER ECN 2406
REV 4 REVISED PER ECN 2413
REV 5 TRACKING PER ECN 2434
REV 6 REVISED PER ECN 2459
REV 7 REVISED PER ECN 2593

END OF REPORT

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EFFECTIVITY DATE: ALL

SINGLE LEVEL BILLS OF MATERIAL

PARENT PART: 2510-2002 CABLE ASSEMBLY, EXTERNAL KEYBOARD UM: EA PROD CODE: 94 ECN: 2638 ASSEMBLY QTY: 1
ERC: SFCE CODE: A TYPE: 1 ABC: C PLAN CODE: P DATE: 03-NOV-82

ITEM NO	COMPONENT PART NUMBER	E R	DESCRIPTION / REMARKS	PR CD	COMM CODE	S C	T Y	S P	A R	P L	UM	EXTENDED QTY PER	START DATE	S/N	CLOSE DATE	S/N	OPP SEQ	LT OFF	STORES ACCOUNT
-A	2510-2002-1L		LIST OF MTL, EXTERNAL KEYBOARD	94		D	*		*	U	EA	0					10	0	011-011
-B	2510-2002-10		ASSY DWG, EXTERNAL KEYBOARD	94		D	*		*	U	EA	0					10	0	011-011
-D	2510-3001-4D		WIRELIST, BOX ASSY, MICRO MODAL	94		D	*		*	U	EA	0					10	0	011-011
002	4220-5830		CONN, FLAT CABLE, 25 PIN (D TYPE)	99	NC	P	1		C	P	EA	1					10	0	011-011
004	4230-5220		CONN., PC, 10 POS	93	NC	P	1		B	P	EA	1					10	0	011-011
006	0034-7061		WIRE, 25 COND, RIBBON, 28 AWG, JKTD	99		X	3		C	U	FT	0					10	0	011-011
008	4220-5841		HOOD, "D" TYPE	99	NC	P	1		C	P	EA	1					10	0	011-011
010	4220-6030		JACKSCREW ASSEMBLY	94	NC	P	1		C	P	ST	1					10	0	011-011
012	2267-0018		KEY, CONN.	93		P	1		C	P	EA	1					10	0	011-011
014	7573-0015		SPACER, HEX, 4-40 X .375LG	99		X	3		C	U	EA	2					10	0	011-011
016	8063-1001		WASHER, FLAT, #4	99		X	3		C	U	EA	2					10	0	011-011
018	7043-1027		SCREW, PAN HD, 4-40 X 1/4LG	99		X	3		C	U	EA	2					10	0	011-011

NOTES:

REV 1 RESTRICTED RELEASE
REV 2 RESTRICTED RELEASE
REV 2A PRE-RELEASE
REV 3 REVISED PER ECN 2638

EFFECTIVITY DATE: ALL

SINGLE LEVEL BILLS OF MATERIAL

PARENT PART: 2510-2004 CABLE ASSEMBLY, EXTERNAL PRINTER UM: EA PROD CODE: 94 ECN: 2638 ASSEMBLY QTY: 1
ERC: SRCE CODE: A TYPE: 1 ABC: C PLAN CODE: P DATE: 03-NOV-82

ITEM NO	COMPONENT PART NUMBER	E R	DESCRIPTION REMARKS	PR CD	COMM CODE	S C	T Y	S F	A B L	P UF	UM	EXTENDED QTY PER	START DATE	S/N	CLOSE DATE	S/N	OPR SEQ	LT OFF	STORES ACCOUNT
-A	2510-2004-1L		LIST OF MTL, EXTERNAL PRINTER	94		D	*		*	U	EA	0					10	0	011-011
-B	2510-2004-10		ASSY DWG, EXTERNAL PRINTER	94		D	*		*	U	EA	0					10	0	011-011
002	4220-5835		CONN SOCKET 37 PIN FEMALE	94	NC	P	1		C	P	EA	1					10	0	011-011
004	4213-0180		CONN, PLUG, 34 PIN F/M (W/STR RELF)	99	NC	P	1		B	P	EA	1					10	0	011-011
006	4203-3017		CABLE, FLAT, JACKETED (34 COND)	99	VC	X	3		C	U	FT	0					10	0	011-011
008	4220-5840		BACKSHELL CONN 37 POS	94	NC	P	1		C	P	EA	1					10	0	011-011
010	4220-6030		JACKSCREW ASSEMBLY	94	NC	P	1		C	P	ST	1					10	0	011-011

NOTES:

REV 1 RESTRICTED RELEASE
REV 2 RESTRICTED RELEASE
REV 2A PRE-RELEASE
REV 3 REVISED PER ECN 2638

EFFECTIVITY DATE: ALL

S I N G L E L E V E L B I L L S O F M A T E R I A L

PARENT PART: 2510-2007 CABLE ASSEMBLY, INTERNAL PRINTER UM: EA PROD CODE: 94 ECN: 2638 ASSEMBLY QTY: 1
ERC: SRCE CODE: A TYPE: 1 ABC: C PLAN CODE: P DATE: 03-NOV-82

ITEM NO	COMPONENT PART NUMBER	E R	DESCRIPTION / REMARKS	PR CD	COMM CODE	S C	T Y	S P	A B	P L	UM	EXTENDED QTY PER	START DATE	S/N	CLOSE DATE	S/N	OPR SEQ	LT OFF	STORES ACCOUNT
-A	2510-2007-1L		LIST OF MTL, INTERAL PRINTER	94		D	*		*	U	EA	0					10	0	011-011
-B	2510-2007-1D		ASSY DWG, INTERNAL PRINTER	94		D	*		*	U	EA	0					10	0	011-011
-C	2510-3001-2D		SCHEMATIC, BOX ASSY, MICRO MODAL	94		D	*		*	U	EA	0					10	0	011-011
002	4220-5834		CONN PLUG 37 PIN MALE	94	NC	P	1		C	P	EA	1					10	0	011-011
004	4213-0180		CONN, PLUG, 34 PIN F/M (W/STR RELF)	99	NC	P	1		B	P	EA	1					10	0	011-011
006	4203-3000		CABLE, FLAT 34 CONDUCTOR	99	WC	X	1		C	U	FT	0					10	0	011-011
008	4220-5847		JACK SOCKET ASSEMBLY	94	NC	P	1		C	P	ST	1					10	0	011-011

NOTES:

REV 1 RESTRICTED RELEASE
REV 2 RESTRICTED RELEASE
REV 3 RESTRICTED RELEASE
REV 4 RESTRICTED RELEASE
REV 4A PRE-RELEASE
REV 5 REVISED PER ECN 2638

PRINTED 12-SEP-83 13:12 GENRAD - VAD BML VERSION 09-FEB-82 PAGE 1

EFFECTIVITY DATE: ALL

S I N G L E L E V E L B I L L S O F M A T E R I A L

PARENT PART: 2510-2006 * CABLE ASSEMBLY, INTERNAL KEYBOARD UM: EA PROD CODE: 94 ECN: 2755 ASSEMBLY QTY: 1
ERC: SPEC CODE: A TYPE: 1 ABC: C PLAN CODE: P DATE: 17-AUG-83

ITEM NO	COMPONENT PART NUMBER	E R	DESCRIPTION / REMARKS	PR CD	COMM CODE	S C	T Y	S P	A B	P L	UM	EXTENDED QTY PER	START DATE	START S/N	CLOSE DATE	CLOSE S/N	OPR SEQ	LT OFF	STORES ACCOUNT
-A	2510-2006-1L		LIST OF MTL, INTERNAL KEYBOARD	94		D	*		*	U	EA	0					10	0	911-911
-B	2510-2006-1D		ASSY DWG, INTERNAL KEYBOARD	94		D	*		*	U	EA	0					10	0	911-911
-C	2510-2001-2D		SCHEMATIC, BOX ASSY, MICRO MODAL	94		D	*		*	U	EA	0					10	0	911-911
002	4220-5836		CONN, FLAT CABLE, 25 PT (D TYPE)	99	NI	P	1		C	P	EA	1					10	0	911-911
004	4213-0179		CONN, SOCKET, 20 PIN(W/STR RELIEF)	99	NH	P	1		C	P	EA	1					10	0	911-911
006	1134-7066		CABLE, FLAT RIBBON, 20 COND, 28 AWG	93		X	1		*	U	FT	0					10	0	911-911
008	4220-5847		JACK SOCKET ASSEMBLY	94	MH	P	1		C	P	ST	1					10	0	911-911

NOTES:

REV 1 RESTRICTED RELEASE
REV 2 RESTRICTED RELEASE
REV 3 RESTRICTED RELEASE
REV 3A PRE-RELEASE
REV 5 REVISED PER ECN 2630
REV 6 REVISED PER ECN 2755

EFFECTIVITY DATE: ALL

S I N G L E L E V E L B I L L S O F M A T E R I A L

PARENT PART: 2510-2012 CABLE ASSY POWER MODULE 115V (J1) UM: EA PROD CODE: 94 ECN: 2615 ASSEMBLY QTY: 1
ERC: SRCE CODE: A TYPE: 1 ARC: C PLAN CODE: P DATE: 26-AUG-82

ITEM NO	COMPONENT PART NUMBER	ER	DESCRIPTION / REMARKS	PR CD	COMM CODE	SC	TY	SP	AB	PL	UM	EXTENDED QTY PER	START DATE	START S/N	CLOSE DATE	CLOSE S/N	OPR SEQ	LT OFF	STORES ACCOUNT
-A	2510-2012-1L		LIST OF MTL, POWER MODULE 115V (J1)	94		D	*		*	U	EA	0					10	0	011-011
-B	2510-2012-1D		ASSY DWG, POWER MODULE 115V (J1)	94		D	*		*	U	EA	0					10	0	011-011
-D	2510-2000-4D		WIRELIST, ASSY PWR MODUE ULE 115V	94		D	*		*	U	EA	0					10	0	011-011
002	4213-0183		CONN, SOCKET HOUSING (15 PIN) J1	93	NC	P	1		C	P	EA	1					10	0	011-011
004	7498-0011		CONTACT, CONN SOCKET, 18-24 AWG J1-1 THRU J1-12	99	SO	P	1		C	P	EA	12					10	0	011-011
008	8163-2042		WIRE, STRANDED, TEF, WHT 18AWG	99	WC	X	3		C	U	EA	0					10	0	011-011
010	8163-2043		WIRE, STRANDED, TEF, BLK 18AWG	99	WC	X	3		C	U	EA	0					10	0	011-011
012	8163-2046		WIRE, STRANDED, TEF, GRN 18AWG	99	WC	X	3		C	U	EA	0					10	0	011-011
014	7920-0484		TERM, 16-22 AWG, #4 STUD	94		X	1		*	U	EA	1					10	0	011-011
016	7923-0040		TERMINAL, QUICK DISCONNECT 14-16AWG	99		X	3		C	U	EA	4					10	0	011-011
018	7920-0165		TERM, 18-22 AWG, SLIP ON, .250	93		X	1		*	U	EA	6					10	0	011-011
020	7923-0044		TERMINAL, RING TONGUE, NO.8 16-14	99		X	3		C	U	EA	1					10	0	011-011

NOTES:

REV 1 RESTRICTED RELEASE
REV 1A PRE-RELEASE
REV 2 RELEASED PER ECN 2475
REV 3 REVISED PER ECN 2514
REV 4 REVISED PER ECN 2615

END OF REPORT

EFFECTIVITY DATE: ALL

S I N G L E L E V E L B I L L S O F M A T E R I A L

PARENT PART: 2510-2013 CABLE ASSY, POWER MODULE 230V (J1) UM: EA PROD CODE: 94 ECN: 2615 ASSEMBLY QTY: 1
ERC: SRCE CODE: A TYPE: 1 ABC: C PLAN CODE: P DATE: 26-AUG-82

ITEM NO	COMPONENT PART NUMBER	E R	DESCRIPTION / REMARKS	PR CD	COMM CODE	S C	T Y	S P	A D	P L	UM	EXTENDED QTY PER	START DATE	START S/N	CLOSE DATE	CLOSE S/N	OPR SEQ	LT OFF	STORES ACCOUNT
-A	2510-2013-1L		LIST OF MTL, CABLE ASSY MOD 230V	94		D	*		*	U	EA	0					10	0	011-011
-B	2510-2013-1D		ASSY DWG, CABLE ASSY PWR MOD 230V	94		D	*		*	U	EA	0					10	0	011-011
-D	2510-2001-4D		WIRELIST, ASSY POWER MODULE 230V	94		D	*		*	U	EA	0					10	0	011-011
002	4213-0183		CONN, SOCKET HOUSING (15 PIN) J1	93	NC	P	1		C	P	EA	1					10	0	011-011
004	4213-0108		CONTACT, CONN SOCKET, 14-20 AWG J1-1 THRU J1-12	99	NC	P	1		H	P	EA	12					10	0	011-011
006	7920-0484		TERM, 16-22 AWG, #4 STUD	94		X	1		*	U	EA	1					10	0	011-011
008	8163-2042		WIRE, STRANDED, TEF, WHT 18AWG	99	WC	X	3		C	U	EA	0					10	0	011-011
010	8163-2043		WIRE, STRANDED, TEF, BLK 18AWG	99	WC	X	3		C	U	FT	0					10	0	011-011
012	8163-2046		WIRE, STRANDED, TEF, GRN 18AWG	99	WC	X	3		C	U	EA	0					10	0	011-011
014	8163-2041		WIRE, STRANDED, TEF, RED 18AWG	99	WC	X	1		C	U	IN	0					10	0	011-011
016	7923-0043		TERMINAL, SLOTTED TONGUE, NO.10	90		X	3		C	U	EA	4					10	0	011-011
018	7923-0040		TERMINAL, QUICK DISCONNECT 14-16AWG	99		X	3		C	U	EA	2					10	0	011-011
020	7923-0044		TERMINAL, RING TONGUE, NO.8 16-14	99		X	3		C	U	EA	1					10	0	011-011

NOTES:

REV A RESTRICTED RELEASE
REV 1 PRE-RELEASE
REV 2 PRE-RELEASE PER ECN 2453
REV 3 RELEASED PER ECN 2475
REV 4 REVISED PER ECN 2615

(MASTER)

GenRad

DR	C. ZIEGLER	DATE 1-30-81			DRAWING NO	2510-2014-1L	2B
CHK	[signature]	3-19-81				SHEET 1 OF 2	REV
APPD	[signature]	3-19-81			TITLE	CABLE ASSEMBLY, FAN AND POWER (P1)	
APPD			2510				
APPD			USED ON	NEXT ASSY			

SYM	REVISION DESCRIPTION	DATE	APPD	SYM	REVISION DESCRIPTION	DATE	APPD
1	RESTRICTED RELEASE						
2	RESTRICTED RELEASE						
2A	PRE-RELEASE [signature]	3/19/81	[initials]				
2B	RELEASED	7/7/81	[initials]				

RECORD OF REVISION OF EACH SHEET

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
1	1																														
2	2																														
2A	2A																														
2B	2A																														

0000-0015 REV 1

(MASTER)

GenRad

SHEET 2

TITLE	DRAWING NO	REV
CABLE ASSEMBLY, FAN AND POWER (P1)	2510-2014-1L	2A

ITEM	PART NUMBER	QTY	DESCRIPTION	REFERENCE DESIGNATION	NOTE
-A					
-B	2510-2014-1D	REF	ASSEMBLY DRAWING		
-C		REF	SCHEMATIC		
-D	2510-3000-4D	REF	WIRELIST		
-					
1					
2	4213-0101	12	CONTACT, CONNECTOR PIN		
3					
4	4213-0120	1	CONN, MATE-N-LOK	(P1)	
5					
6	7920-0660	1	TERMINAL, RING TONGUE, 18 AWG #6		
7					
8	7923-0034	3	TERMINAL, SLOTTED TONGUE, 16-14 AWG (BLUE)		
9					
10	8163-2042	A/R	WIRE, WHITE, 18 AWG		
11					
12	8163-2043	A/R	WIRE, BLACK, 18 AWG		
13					
14	8163-2046	A/R	WIRE, GREEN, 18 AWG		
15					
16	7923-0040	4	TERM, QUICK DISCONNECT, 14-12 AWG		
17					
18					
19					
20					

REVISIONS

SYM	DESCRIPTION
1	RESTRICTED RELEASE
2	RESTRICTED RELEASE
2A	PRE-RELEASE

NOTES

0000-0016 REV 1

(MASTER)

GenRad

DR	C. ZIEGLER	DATE 1-28-81		
CHK	Binned	3-19-91		
APPD	Binned	3-19-91		
APPD			2510	
APPD			USED ON	NEXT ASSY

DRAWING NO	2510-2016-1L	1B
	SHEET 1 OF 2	REV
TITLE	CABLE ASSEMBLY, BOOT AND INITIATE	

SYM	REVISION DESCRIPTION	DATE	APPD	SYM	REVISION DESCRIPTION	DATE	APPD
1	RESTRICTED RELEASE						
1A	PRE-RELEASE Binned	3/19/91	SF				
1B	RELEASED	7/7/91	SF				

RECORD OF REVISION OF EACH SHEET

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
1	1																														
1A	1A																														
1B	1A																														

0000-0015 REV 1

(MASTER)

GenRad

SHEET 2

TITLE	DRAWING NO	REV
CABLE ASSEMBLY, BOOT AND INITIATE	2510-2016-1L	1A

ITEM	PART NUMBER	QTY	DESCRIPTION	REFERENCE DESIGNATION	NOTE
-A					
-B	2510-2016-1D	REF	ASSEMBLY DRAWING		
-C	2510-3001-20	REF	SCHEMATIC		
-D	2510-2010-40	REF	WIRELIST		
-					
1					
2	7873-0048	1	SWITCH, SPDT, MOM-OFF-MOM		
3					
4	8163-2017	A/R	WIRE, STRANDED, TEF, RED, 22 AWG		
5					
6	8163-2024	A/R	WIRE, STRANDED, TEF, GRAY, 22 AWG		
7					
8	8163-2018	A/R	WIRE, STRANDED, TEF, WHITE, 22 AWG		
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

REVISIONS

SYM	DESCRIPTION
1	RESTRICTED RELEASE
1A	PRE-RELEASE

NOTES

0000-0016 REV 1

PRINTED 20-JUL-82 13:46 GENRAD - VAD BML VERSION 08-FEB-82 PAGE 1

EFFECTIVITY DATE: ALL

S I N G L E L E V E L B I L L S O F M A T E R I A L

PARENT PART: 2510-2020 * PCB ASSY, KD11-HA MODIFIED UM: EA PROD CODE: 94 ECN: 2594 ASSEMBLY QTY: 1
ERC: SRCE CODE: N TYPE: 1 ABC: * PLAN CODE: P DATE: 04-MAY-82

ITEM NO	COMPONENT PART NUMBER	E R	DESCRIPTION / REMARKS	PR CD	COMM CODE	S C	T Y	S P	A H	P L	UM	EXTENDED QTY PER	START DATE	S/N	CLOSE DATE	S/N	OPR SEQ	LT OFF	STORES ACCOUNT
-A	2510-2020-1L		LIST OF MTL, PCB ASSY, KD11-HA MOD	94		D	*		*	U	EA	0					10	0	011-011
-B	2510-2020-1D		ASSY DWG, PCB ASSY, KD11-HA MOD	94		D	*		*	U	EA	0					10	0	011-011
-C	2510-2020-2D		SCHEM, PCB ASSY, KD11-HA MOD	94		D	*		*	U	EA	0					10	0	011-011
003	1765-0020		PROCESSOR, KD11-HA, PCB	94		P	1		A	P	EA	1					10	0	011-011
004	1765-0045		IC, LSI/11 FLOATING POINT OPTION	94		P	1		B	P	EA	1					10	0	011-011

NOTES:

REV 1 RELEASED
REV 2 REVISED PER ECN 2482
REV 3 REVISED PER ECN 2594

END OF REPORT

GenRad

DR	G. ENRILE	8-25-81			DRAWING NO	2510-2021-1L	2
CHK						SHEET 1 OF 2	REV
APPD					TITLE	CORD, POWER, 220V	
APPD			2501	2501			
APPD			USED ON	NEXT ASSY			

SYM	REVISION DESCRIPTION	DATE	APPD	SYM	REVISION DESCRIPTION	DATE	APPD
1	RELEASED PER ECN 2485	23 SEP 81	A. Nora				
2	TRACKING PER ECN 2527	24 Nov 81	A. Nora				

RECORD OF REVISION OF EACH SHEET

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
1	1																														
2	1																														

0000-0015 REV 1

GenRad

SHEET 2

TITLE	DRAWING NO	REV
CORD, POWER, 220V	2510-2021-1L	1

ITEM	PART NUMBER	QTY	DESCRIPTION	REFERENCE DESIGNATION	NOTE
-A					
-B	2510-2021-10	REF	ASSEMBLY DRAWING		
-C					
-D					
-					
1	4213-0077	1	CONN, PLUG, 230V, 3 WIRE		
2					
3	4200-0230	1	POWER CORD, 250V/GA (EUROPEAN)		
4					
5					
6					
7					
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16					
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19					
20					

REVISIONS

SYM	DESCRIPTION
1	RELEASE PER ECN 2485

NOTES

0000-0016 REV 1

EFFECTIVITY DATE: ALL

S I N G L E L E V E L B I L L S O F M A T E R I A L

PARENT PART: 2510-2024 CABLE ASSY, 4662 PLOTTER INTERFACE UM: EA PROD CODE: 94 ECN: 2523 ASSEMBLY QTY: 1
ERC: SRCE CODE: A TYPE: 1 ABC: C PLAN CODE: P DATE: 09-FEB-82

ITEM NO	COMPONENT PART NUMBER	E R	DESCRIPTION REMARKS	PR CD	COMM CODE	S C	T Y	S P	A B	P L	UM	EXTENDED QTY PER	START DATE	S/N	CLOSE DATE	S/N	OPR SEQ	LT OFF	STORES ACCOUNT
-A	2510-2024-1L		LIST OF MTL, 4662 PLOTTER INFC	94		D	*		*	U	EA	0					10	0	011-011
-D	2510-2024-1D		ASSY DWG, 4662 PLOTTER INFC	94		D	*		*	U	EA	0					10	0	011-311
001	4213-0037		CONN, PLUG 25 PIN FEMALE	90	NC	P	1		C	P	EA	2					10	0	011-011
002	4213-0099		HOOD, CONN	99	NI	P	1		C	P	EA	2					10	0	011-011
005	4213-0010		CONN, RCPTL 43 PIN	99	NC	P	5		C	U	EA	0					10	0	011-011

NOTES:

REV 1 RELEASED PER ECN 2523

PRINTED 10-JUN-82 12:18 GENRAD - VAD BPL VERSION 02-SEP-81 PAGE 1

EFFECTIVITY DATE: ALL

S I N G L E L E V E L B I L L S O F M A T E R I A L

PARENT PART: 2510-3000 * ASSEMBLY FRAME MICRO MODAL UM: EA PROD CODE: 94 ECN: 2597 ASSEMBLY QTY: 1
ERC: SPEC CODE: A TYPE: 1 ABC: A PLAN CODE: P DATE: 05-MAY-82

ITEM NO	COMPONENT PART NUMBER	E R	DESCRIPTION REMARKS	PR CG	COMM CODE	S T C Y	S A P H L	UM	EXTENDED QTY PER	START DATE	S/N	CLOSE DATE	S/N	OPR SEQ	LT OFF	STORES ACCOUNT
-A	2510-3000-1L		LIST OF MTL, ASSY FRAME MICROMODAL	94		D *	* U	EA	0					10	0	011-011
-B	2510-3000-1D		ASSY DWG, ASSY FRAME MICROMODAL	94		D *	* U	EA	0					10	0	011-011
-C	2510-3000-4D		WIRELIST, FRAME ASSY, MICRO MODAL	94		D *	* U	EA	0					10	0	011-011
001	1762-3289		POWER SUPPLY 12VDC 8 AMPS 375 WATTS	93		P 3	A P	EA	1					10	0	011-011
003	2501-8068		PANEL, FRONT, FAN	93		P 1	C P	EA	1					10	0	011-011
005	2501-8071		PANEL, LEFT SIDE + HAT SECTION	93		P 1	C P	EA	1					10	0	011-011
007	2501-8066	*	PANEL, RIGHT SIDE	93		P 1	D P	EA	1					10	0	011-011
009	2510-8005		PANEL REAR MICRO-MODAL	94		P 1	C P	EA	1					10	0	011-011
011	2501-8070		STIFFENER, SHIELD, CENTER	93		P 1	C P	EA	1					10	0	011-011
013	2501-8067		GUSSET, CAPTIVE	93		P 1	C P	EA	4					10	0	011-011
015	5501-8076		MOUNTING, ANGLE	93		P 1	C P	EA	1					10	0	011-011
017	2501-9081		BAR MOUNTING	93		P 1	C P	EA	1					10	0	011-011
019	2501-8075		BAFFLE, AIRFLOW	93		P 1	C P	EA	1					10	0	011-011
021	5183-0010		FAN, AXIAL, 115V	99		P 1	A P	EA	2					10	0	011-011
023	5183-0006		FINGER GUARD, FAN	95		P 1	C P	EA	4					10	0	011-011
025	4103-0002		BUSHING, SNAP	99		P 1	C P	EA	1					10	0	011-011
027	4110-2720		BUSHING, SNAP	93		X 1	C U	EA	1					10	0	011-011
029	4313-0006		TIE WRAP, ADHESIVE PACKED MOUNT	99		X 3	C U	EA	3					10	0	011-011
031	2510-2019		CABLE ASSY, BACKPLANE POWER P2/P3	94		A 1	C P	EA	1					10	0	011-011
034	7043-1020		SCREW, FLT HD, 4-40 X 3/8LG	99		X 3	C U	EA	19					10	0	011-011
036	7043-1047		SCREW, PAN HD, 6-32 X 3/8LG	99		X 3	C U	EA	17					10	0	011-011
038	7043-1052		SCREW, PAN HD, 6-32 X 7/8 LG	90		X 3	D U	EA	16					10	0	011-011
040	8043-2002		WASHER, LOCK, NO. 6	95		X 3	D U	EA	4					10	0	011-011
042	8063-1002		WASHER, FLAT, #6	95		X 3	C U	EA	20					10	0	011-011

PRINTED 10-JUN-82 12:18 GENRAD - VAD BML VERSION 02-SEP-81 PAGE 2

EFFECTIVITY DATE: ALL

SINGLE LEVEL BILLS OF MATERIAL

PARENT PART: 2510-3000 • ASSEMBLY FRAME MICRO MODAL. UM: EA PROD CODE: 54 ECN: 2597 ASSEMBLY QTY: 1
ERC: SRCE CODE: A TYPE: 1 ABC: A PLAN CODE: P DATE: 05-MAY-82

ITEM NO	COMPONENT PART NUMBER	E R	DESCRIPTION REMARKS	PR CD	COMM CODE	S C	T Y	S P	A B	P L	UM	EXTENDED QTY PER	START DATE	S/N	CLOSE DATE	S/N	OPR SEQ	LT OFF	STORES ACCOUNT
044	7043-1076		SCREW, PHIL PAN HD, 8-32 X 1 LG	95		X	1		C	U	EA	4					10	0	011-011
046	7043-1058		SCREW, PHIL FLT HD, 8-32 X 1/2 LG	99		X	1		C	U	EA	4					10	0	011-011
048	5793-2002		NUT, 6-32, KEP	95		X	3		C	U	EA	16					10	0	011-011
050	8043-2003		WASHER, LOCK, #8	24		X	3		D	U	EA	4					16	0	011-011
052	8063-1003		WASHER, FLAT, NO 8	99		X	3		C	U	EA	4					10	0	011-011
054	7650-3110		SPACER, 3/8OD, 7/16L, #8 THRU ALUM	93		P	1		C	P	EA	4					10	0	011-011
056	7043-1049		SCREW, PAN HD, 6-32 X 1/2LG	95		X	3		C	U	EA	3					10	0	011-011
058	7043-1074		SCREW, PAN HD, 8-32 X 3/4LG	99		X	3		C	U	EA	1					10	0	011-011
060	2510-2014		CABLE ASSEMBLY, FAN & POWER (P1)	94		A	1		C	P	EA	1					10	0	011-011
062	4313-0007		CLAMP, FLAT CABLE	90		X	5		C	U	EA	3					10	0	011-011

NOTES:

REV 3A RELEASED
REV 4 REVISED PER ECN 2543
REV 5 REVISED PER ECN 2597

PRINTED 05-NOV-82 12:50 GENRAD - VAD DML VERSION 08-FEB-82 PAGE 1

EFFECTIVITY DATE: ALL

SINGLE LEVEL BILLS OF MATERIAL

PARENT PART: 2510-9400-1 * PRINTER, 110V, 60HZ, 2510 UM: EA PRCD CODE: 54 ECN: 2641 ASSEMBLY QTY: 1
ERC: SRCE CODE: N TYPE: 1 ABC: * PLAN CODE: P DATE: 14-OCT-82

ITEM NO	COMPONENT PART NUMBER	E R	DESCRIPTION / REMARKS	PR CD	COMM CODE	S C	T Y	S P	A B	P L	UM	EXTENDED QTY PER	START DATE	S/N	CLOSE DATE	S/N	OPR SEQ	LT OFF	STORES ACCOUNT
-A	2510-9400-1-1L		LIST OF MTL, PRINTER, 110V, 60HZ	94		D	1		*	U	EA	0					10	0	011-011
-B	2510-9400-1-1D		ASSY DWG, PRINTER, 110V, 60HZ	94		D	1		*	U	EA	0					10	0	011-011
001	2501-2066		PRINTER, BASIC ASSEMBLY	93		A	1		A	P	EA	1					10	0	011-011
003	5553-0003		LABEL ADHESIVE, 100/120V 60HZ 1.5A	93		P	1		C	P	EA	1					10	0	011-011
005	1762-4188		MANUAL, T80RO PRINTER	93	PA	D	3		C	P	EA	1					10	0	011-011
007	2510-2004		CABLE ASSEMBLY, EXTERNAL PRINTER	94		A	1		C	P	EA	1					10	0	011-011
019	1762-3533		PRINT HEAD, THERMAL (T80)	99	PA	P	1		C	P	EA	0					10	0	011-011
020	8433-7007		PAPER, THERMAL, BLACK IMAGE (8 3/4)	93		P	1		C	P	RL	6					10	0	011-011

NOTES:

REV 1 RELEASED PER ECN 2567
REV 2 REVISED PER ECN 2641

PRINTED 05-NOV-82 12:50 GENRAD - VAD BML VERSION 08-FEB-82 PAGE 1

EFFECTIVITY DATE: ALL

S I N G L E L E V E L B I L L S O F M A T E R I A L

PARENT PART: 2510-9400-2 * PRINTER, 220V, 50HZ, 2510 UM: EA PROD CODE: 54 ECN: 2641 ASSEMBLY QTY: 1
ERC: SRCE CODE: N TYPE: 1 ABC: * PLAN CODE: P DATE: 14-OCT-82

ITEM NO	COMPONENT PART NUMBER	E R	DESCRIPTION / REMARKS	PR CD	COMM CODE	S C	T Y	S P	A B	P L	UM	EXTENDED QTY PER	START DATE	S/N	CLOSE DATE	S/N	OPR SEQ	LT OFF	STORES ACCOUNT
-A	2510-9400-2-1L		LIST OF MTL, PRINTER, 220V, 50HZ	94		D	1		*	U	EA	0					10	0	011-011
-B	2510-9400-2-1D		ASSY DWG, PRINTER, 220V, 50HZ	94		D	1		*	U	EA	0					10	0	011-011
001	2501-2066		PRINTER, BASIC ASSEMBLY	93		A	1		A	P	EA	1					10	0	011-011
003	5553-0005		LABEL ADHESIVE 220/240V 50HZ .75A	93		P	1		C	P	EA	1					10	0	011-011
005	1762-4188		MANUAL, TBORO PRINTER	93	PA	D	3		C	P	EA	1					10	0	011-011
007	4213-0077		CONN, PLUG 230V 3 WIRE	99	NC	P	1	S	C	P	EA	1					10	0	011-011
009	2510-2004		CABLE ASSEMBLY, EXTERNAL PRINTER	94		A	1		C	P	EA	1					10	0	011-011
019	1762-3533		PRINT HEAD, THERMAL (T80)	99	PA	P	1		C	P	EA	0					10	0	011-011
020	8433-7007		PAPER, THERMAL, BLACK IMAGE (8 3/4)	93		P	1		C	P	RL	6					10	0	011-011

NOTES:

REV 1 RELEASED PER ECN 2567
REV 2 REVISED PER ECN 2641

PRINTED 05-NOV-82 12:50 GENRAD - VAD BML VERSION 08-FEB-82 PAGE 1

EFFECTIVITY DATE: ALL

S I N G L E L E V E L B I L L S O F M A T E R I A L

PARENT PART: 2510-9400-3 * PRINTER, 110V, 50HZ, 2510 UM: EA PROD CODE: 94 ECN: 2641 ASSEMBLY QTY: 1
ERC: SRCE CODE: N TYPE: 1 ABC: * PLAN CODE: P DATE: 14-OCT-82

ITEM NO	COMPONENT PART NUMBER	E R	DESCRIPTION REMARKS	PR CD	COMM CODE	S C	T Y	S P	A B	P L	UM	EXTENDED QTY PER	START DATE	S/N	CLOSE DATE	S/N	OPR SEQ	LT OFF	STORES ACCOUNT
-A	2510-9400-3-1L		LIST OF MTL, PRINTER, 110V, 50HZ	94		D	1		*	U	EA	0					10	0	011-011
-B	2510-9400-3-10		ASSY DWG, PRINTER, 110V, 50HZ	94		D	1		*	U	EA	0					10	0	011-011
001	2501-2066		PRINTER, BASIC ASSEMBLY	93		A	1		A	P	EA	1					10	0	011-011
003	5553-0004		LABEL ADHESIVE, 100/127V 50HZ 1.5A	93		P	1		C	P	EA	1					10	0	011-011
004	1762-4188		MANUAL, T80RO PRINTER	93	PA	D	3		C	P	EA	1					10	0	011-011
006	2510-2004		CABLE ASSEMBLY, EXTERNAL PRINTER	94		A	1		C	P	EA	1					10	0	011-011
019	1762-3533		PRINT HEAD, THERMAL (T80)	99	PA	P	1		C	P	EA	0					10	0	011-011
020	8433-7007		PAPER, THERMAL, BLACK IMAGE (8 3/4)	93		P	1		C	P	RL	6					10	0	011-011

NOTES:

REV 1 RELEASED PER ECN 2567
REV 2 REVISED PER ECN 2641

END OF REPORT

PRINTED 04-MAR-91 13:40 GENRAD - VAD RPL VERSION 04-FEB-91 PAGE 1

EFFECTIVITY DATE: ALL S I N G L E L E V E L B I L L S O F M A T E R I A L

PARENT PART: 2511-2000 * ASSY, 115V POWER MODULE UM: EA PROD CODE: 98 ECN: 2695 ASSEMBLY QTY: 1
ERC: SECE CODE: A TYPE: 1 ABC: A PLAN CODE: P DATE: 03-MAR-83

ITEM NO.	COMPONENT PART NUMBER	E R	DESCRIPTION / REMARKS	PR CD	COMM CODE	S C	T Y	S P	A B	P L	UM	EXTENDED QTY PER	START DATE	S/N	CLOSE DATE	S/N	OPR SEQ	LT OFF	STORES ACCOUNT
-A	2511-2000-1L		LIST OF MTL, ASSY, 115V PWR MOD	98		D	1	*	U		EA	0					10	0	311-011
-B	2511-2000-1D		ASSY DWG, ASSY, 115V PWR MOD	98		D	1	*	U		EA	0					10	0	111-011
-D	2511-2000-4D		WIRELIST, ASSY, 115V PWR MOD	98		D	1	*	U		EA	0					10	0	011-011
002	2511-8011	*	PLATE, 115V POWER MODULE	98	FP	P	1	*	P		EA	1					10	0	011-012
004	2510-9002		COVER PROTECTIVE POWER MODULE	94		P	1	C	P		EA	1					10	0	011-011
006	5703-1301		NUT, MACH HEX 4-40	99		X	3	C	U		EA	4					10	0	111-011
007	5703-2001		NUT, MACH #4 KEP SS	99		X	3	C	U		EA	1					10	0	011-011
009	5703-2002		NUT, 6-32, KEP	99		X	3	C	U		EA	4					10	0	011-011
009	8013-2001		WASHER, LOCK, NO. 4	94		X	3	D	U		EA	1					10	0	011-011
010	1752-3402		SCREW, PHILLIPS 6-32X1/2 BLK OXIDE	94	PA	X	1	C	U		EA	4					10	0	011-011
012	0028-4203		TAPE, UHMW POLYETHYLENE (5 MIL)	93		X	3	C	U		FT	0					10	0	011-011
014	4213-0111		OUTLET, 3 WIRE, 125V 15A	90	NC	P	1	A	P		EA	2					10	0	011-011
016	4240-0250		CONN, PWR PLUG	92	NC	P	1	C	P		EA	1					10	0	011-011
017	4203-0012		CABLE, POWER, 7 1/2 FT	92	NC	P	1	C	P		EA	1					10	0	011-011
018	5320-1390		CIRCUIT BREAKER, 15 AMP, BLK, 115V	94	FC	P	1	C	P		EA	1					10	0	011-011
020	2510-2012		CABLE ASSY POWER MODULE 115V (J1)	94		A	1	C	P		EA	1					10	0	011-011

NOTES:

REV 1 RELEASED PER ECN 2695

PRINTED 04-MAR-83 13:40 GENRAD - VAD PBL VERSION 08-FEB-82 PAGE 1

EFFECTIVITY DATE: ALL

SINGLE LEVEL BILLS OF MATERIAL

PARENT PART: 2511-2001 * ASSY, 230V POWER MODULE UM: EA PROD CODE: 98 ECN: 2695 ASSEMBLY QTY: 1
EBC: SRCE CODE: A TYPE: 1 ABC: A PLAN CODE: 1 DATE: 03-MAR-83

ITEM NO	COMPONENT PART NUMBER	E B	DESCRIPTION REMARKS	PR CD	COMM CODE	S T S A P / C Y P B L	UM	EXTENDED QTY PER	START DATE	S/N	CLOSE DATE	S/N	OPR SEQ	LT OFF	STORES ACCOUNT
-A	2511-2001-1L		LIST OF MTL, ASSY, 230V PWR MOD												
					99	D 1 * U	EA	0							
-B	2511-2001-1D		ASSY DWG, ASSY, 230V PWR MOD										10	0	011-011
					98	D 1 * U	EA	0							
-D	2511-2001-4D		WIRELIST, ASSY, 230V PWR MOD										10	0	011-011
					98	D 1 * U	EA	0							
002	2511-9012	*	PLATE, 230V POWER MODULE										10	0	011-011
					38 EP	P 1 * P	EA	1							
004	2510-9002		COVER PROTECTIVE POWER MODULE										10	0	011-012
					94	P 1 C P	EA	1							
006	5793-1001		NUT, MACH HEX 4-40										10	0	011-011
					99	X 3 C U	EA	4							
007	5793-2001		NUT, MACH #4 KEP SS										10	0	011-011
					92	X 3 C U	EA	1							
008	5793-2002		NUT, 6-32, KEP										10	0	011-011
					99	X 3 C U	EA	4							
009	8013-2001		WASHER, LOCK, NO. 4										10	0	011-011
					94	X 3 D U	EA	1							
010	1752-3302		SCREW, PHILLIPS 6-32X1/2 BLK OXIDE										10	0	011-011
					94 PA	X 1 C U	EA	4							
012	0023-4293		TAPE, UHMW POLYETHYLENE (5 MIL)										10	0	011-011
					93	X 3 C U	RL	0							
014	4213-9112		OUTLET, 3-WIRE, 250V 15A										10	0	011-011
					30 NC	P 1 C P	EA	2							
016	4210-0250		CONN, PWR PLUG										10	0	011-011
					92 NC	P 1 C P	EA	1							
017	4203-3012		CABLE, POWER, 7 1/2 FT										10	0	011-011
					32 NC	P 1 C P	EA	1							
019	5320-1300		CIRCUIT BREAKER 7.5 AMP, BLK, 230V										10	0	011-011
					94 FC	P 1 C P	EA	1							
020	2510-2013		CABLE ASSY, POWER MODULE 230V (J1)										10	0	011-111
					99	A 1 C P	EA	1					10	0	011-111

NOTES:

REV 1 RELEASED PER ECN 2695

END OF REPORT

PRINTED 12-OCT-83 10:13 GENRAD - VAD BML VERSION 03-FEB-82 PAGE 1

EFFECTIVITY DATE: ALL

S I N G L E L E V E L B I L L S O F M A T E R I A L

PARENT PART: 2511-2003 ▲ CABLE ASSY, 1ST MINI FLOPPY SIGNAL UM: EA PROD CODE: 3R ECN: 2775 ASSEMBLY QTY: 1
ERC: SRCL CODE: A TYPE: 1 ABC: C PLAN CODE: P DATE: 29-SEP-83

ITEM NO	COMPONENT PART NUMBER	E R	DESCRIPTION / REMARKS	PR CD	COMM CODE	S C	T Y	S F	A R	P L	UM	EXTENDED QTY PER	START DATE	S/N	CLOSE DATE	S/N	OPR SEQ	LT OFF	STORES ACCOUNT
-A	2511-2003-1L		LIST OF MTL, 1ST MINI FLOPPY SIGN	98		D	1		*	U	EA	0					10	0	011-011
-B	2511-2003-1D		ASSY DWG, 1ST MINI FLOPPY SIGN	98		D	1		*	J	EA	0					10	0	011-011
002	4230-4735		CONN, 34 POS, CARD EDGE RIBBON	95	36	P	1		C	P	EA	1					10	0	011-011
004	4220-5834		CONN PLUG 37 PIN MALE	94	NC	P	1		C	P	EA	1					10	0	011-011
005	9034-7064		CABLE, 28 AWG, 34 COND, RIBBON	98	CW	X	1		*	U	FT	5					10	0	011-011
008	4220-5840		BACKSHELL CONN 37 POS	94	NI	P	1		C	P	EA	1					10	0	011-011
010	4220-6070		JACKSCREW ASSEMBLY	94	NI	P	1		C	P	ST	2					10	0	011-011
012	4230-8261		KEY, POLARIZING (3M)	95	CW	X	1		C	U	EA	1					10	0	011-011

NOTES:

REV 1 PRE-RELEASE
REV 2 REVISED PER ECN 2692
REV 3 REVISED PER ECN 2745
REV 4 RELEASED PER ECN 2775

PRINTED 12-OCT-83 10:13 GENRAD - VAD BML VERSION 06-FEB-82 PAGE 1

EFFECTIVITY DATE: ALL

SINGLE LEVEL BILLS OF MATERIAL

PARENT PART: 2511-2004 • CABLE ASSY, DISK POWER UM: EA PROD CODE: 98 ECN: 2775 ASSEMBLY QTY: 1
ERC: SRCE CODE: A TYPE: 1 ABC: C PLAN CODE: I DATE: 29-SEP-83

ITEM NO	COMPONENT PART NUMBER	E R	DESCRIPTION REMARKS	PR CD	COMM CODE	S C	I Y	S P	A H	? L	UM	EXTENDED QTY PER	START DATE	S/N	CLOSE DATE	S/N	OPR SEQ	LT OFF	STORES ACCOUNT
-A	2511-2004-1L		LIST OF MTL, DISK POWER	98		D	1		*	U	EA	0					10	0	011-011
-B	2511-2004-1D		ASSY DWG, DISK POWER	98		D	1		*	U	EA	0					10	0	011-011
-C	2511-2004-4D		WIRELIST, DISK POWER	98		D	1		*	U	EA	0					10	0	011-011
001	4220-4750		HOUSING, 4 POS, PLUG	98	NI	P	1		C	P	EA	1					10	0	011-011
002	4270-4160		PIN, CONTACT, MALE (14-20)	99	NC	P	1		C	P	EA	4					10	0	011-011
003	4220-2505		CONN HOUSING, 4 POS, SOCKETS	95	NI	P	1		C	P	EA	1					10	0	011-011
004	4213-0108		CONTACT, CONN SOCKET, 14-20 AWG	99	NI	P	1		C	P	EA	4					10	0	011-011
006	0163-2059		WIRE, STRANDED, TEF, BLK 16AWG	99	NC	X	1		C	U	FT	20					10	0	011-011
008	3433-3018		SLEEVING, INSUL 1/4 ID	99		X	3		C	U	FT	0					10	0	011-011

NOTES:

REV 1 PRE-RELEASE
REV 2 RELEASED PER ECN 2775

EFFECTIVITY DATE: ALL

S I N G L E L E V E L B I L L S O F M A T E R I A L

PARENT PART: 2511-2005 CABLE ASSY, INTERNAL FLOPPY UM: EA PROD CODE: 98 ECN: ASSEMBLY QTY: 1
ENC: SRCE CODE: A TYPE: 1 ABC: C PLAN CODE: P DATE: 10-JAN-83

ITEM NO	COMPONENT PART NUMBER	E R	DESCRIPTION / REMARKS	PR CD	COMM CODE	S C	T Y	S P	A B	P L	UM	EXTENDED QTY PER	START DATE	START S/N	CLOSE DATE	CLOSE S/N	OPP SEQ	LT OFF	STORES ACCOUNT
-A	2511-2005-1L		LIST OF MTL, INTERNAL FLOPPY	98		D	1		*	U	EA	0					10	0	011-011
-B	2511-2005-1D		ASSY DWG, INTERNAL FLOPPY	98		D	1		*	U	EA	0					10	0	011-011
002	4220-5835		CONN SOCKET 37 PIN FEMALE	94	NC	P	1		C	P	EA	1					10	0	011-011
004	4213-0180		CONN, PLUG, 34 PIN F/M (W/STR RELF)	99	NC	P	1		R	P	EA	1					10	0	011-011
006	4203-3000		CABLE, FLAT 34 CONDUCTOR	99	NC	X	1		C	U	FT	0					10	0	011-011
008	4220-5847		JACK SOCKET ASSEMBLY	94	NC	P	1		C	P	ST	2					10	0	011-011
010	4220-7606		KEY, POLAR,CONN ACCESSORY .100CTRS	94	NC	P	1		C	P	EA	1					10	0	011-011

NOTES:

REV 1 PRE-RELEASE

PRINTED 21-APR-83 08:10 GENRAD - VAD PPL VERSION 08-FEB-82 PAGE 1

EFFECTIVITY DATE: ALL

S I N G L E   L E V E L   B I L L S   O F   M A T E R I A L

PARENT PART: 2511-2006 * CABLE ASSY, Q-BUS UNIBUS INF 16" UM: EA PROD CODE: 9P ECN: 2708 ASSEMBLY QTY: 1
ERC: SRCE CODE: A TYPE: 1 ABC: C PLAN CODE: P DATE: 06-APR-83

ITEM NO	COMPONENT PART NUMBER	E R	DESCRIPTION / REMARKS	PR CD	COMM CODE	S C	T Y	S P	A B	P L	UM	EXTENDED QTY	FLR	START DATE	S/N	CLOSE DATE	S/N	OPP SEQ	LT OFF	STORES ACCOUNT
-A	2511-2006-1L		LIST OF MTL, Q-BUS UNIBUS INFC 16"	98		D	1		*	U	EA	0						10	0	011-011
-B	2511-2006-1D		ASSY DWG, Q-BUS UNIBUS INFC 16"	98		D	1		*	U	EA	0						10	0	011-011
001	4230-8768		CONN HOUSING, 60 POS	98	NC	P	1		C	P	EA	2						10	0	011-011
003	0034-6944		CABLE,28 AWG,60 COND,.050 RIBBON	98	CW	X	1		*	U	FT	2						10	0	011-011

NOTES:

REV 1 PRE-RELEASE ECN 2708

PRINTED 02-FEB-83 07:55 GENRAD - VAD BML VERSION 08-FEB-82 PAGE 1

EFFECTIVITY DATE: ALL

S I N G L E L E V E L B I L L S O F M A T E R I A L

PARENT PART: 2511-2010 BACKPLANE ASSY, VCS LSI UM: EA PROD CODE: 98 ECN: ASSEMBLY QTY: 1
ERC: SRCF CODE: A TYPE: 1 ABC: B PLAN CODE: P DATE: 05-JAN-83

ITEM NO	COMPONENT PART NUMBER	E R	DESCRIPTION REMARKS	PR CD	COMM CODE	S C	T Y	S P	A B	P L	UM	EXTENDED QTY PER	START DATE	START S/N	CLOSE DATE	CLOSE S/N	OPR SEQ	LT OFF	STORES ACCOUNT
-A	2511-2010-1L		LIST OF MTL, BKPL ASSY, VCS LSI	98		D	1		*	U	EA	0					10	0	011-011
-B	2511-2010-1D		ASSY DWG, BKPL ASSY, VCS LSI	98		D	1		*	U	EA	0					10	0	011-011
-D1	2511-2015-4D		WIRELIST, VCS LSI BKPL POWER J3	98		D	1		*	U	EA	0					10	0	011-011
-D2	2510-2010-4D		WIRELIST, BACKPLANE, MICROMODAL LSI	94		D	*		*	U	EA	0					10	0	011-011
002	2510-4700		ASSEMBLY BACKPLANE MICRO MODAL	94		P	1		B	P	EA	1					10	0	011-011
004	2511-2015		CABLE ASSY, VCS LSI BKPL POWER J3	98		A	1		C	P	EA	1					10	0	011-011
006	2510-2016		CABLE ASSEMBLY BOOT & INITIATE	94		A	1		C	P	EA	1					10	0	011-011
008	2501-8000		SPACER, MTG	93	FP	P	1		C	P	EA	2					10	0	011-011
010	2501-8001		STIFFENER, MOTHER BOARD	93	FP	P	1		C	P	EA	2					10	0	011-011
012	7043-1047		SCREW, PAN HD, 6-32 X 3/8LG	99		X	3		C	U	EA	4					10	0	011-011
013	8043-2002		WASHER, LOCK, NO. 6	99		X	3		D	U	EA	4					10	0	011-011
014	8063-1002		WASHER, FLAT, #6	99		X	3		C	U	EA	4					10	0	011-011
016	7043-1029		SCREW, PHIL PAN HD, 4-40 X 3/8 LG	99		X	1		C	U	EA	12					10	0	011-011
017	8043-0001		WASHER, SPLIT LK #4	99		X	3		C	U	EA	12					10	0	011-011
018	8063-1001		WASHER, FLAT, #4	99		X	3		C	U	EA	12					10	0	011-011
019	4320-0300		CLAMP, CABLE 1/4IN	99		X	3		C	U	EA	1					10	0	011-011

NOTES:

REV 1 PRE-RELEASE

EFFECTIVITY DATE: ALL

SINGLE LEVEL BILLS OF MATERIAL

PARENT PART: 2511-2015 • CABLE ASSY, VCS LSI BKPL POWER J3 UM: EA PROD CODE: 98 ECN: 2775 ASSEMBLY QTY: 1
ERC: SRCE CODE: A TYPE: 1 ABC: C PLAN CODE: P DATE: 29-SEP-83

ITEM NO	COMPONENT PART NUMBER	ER	DESCRIPTION / REMARKS	PR CP	COMM CODE	ST CY	TP	SP	AB	PL	UM	EXTENDED QTY PER	START DATE	S/N	CLOSE DATE	S/N	OPR SEQ	LT OFF	STORES ACCOUNT
-A	2511-2015-1L		LIST OF MTL, VCS LSI BKPL POWER J3	98		D	1		*	U	EA	0					10	0	911-011
-B	2511-2015-1D		ASSY DWG, VCS LSI BKPL POWER J3	98		D	1		*	U	EA	0					10	0	911-011
-C	2511-3001-2D		SCHEM, VIB CTL SYS BOX	98		D	1		*	U	EA	0					10	0	911-011
-D	2511-2015-4D		WIRELIST, VCS LSI BKPL POWER J3	98		D	1		*	U	EA	0					10	0	911-011
002	4211-0107		CONN, 9 PIN, SOCKET HOUSING J3	99	NC	P	1		C	P	EA	1					10	0	911-011
004	4213-0109		CONTACT, CONN SOCKET, 14-20 AWG J3-1,J3-2	99	NI	P	1		C	P	EA	2					10	0	911-011
006	7494-0011		CONTACT, CONN SOCKET, 18-24 AWG J3-3 - J3-9	99	MH	P	1		C	P	EA	7					10	0	911-011
010	8163-2075		WIRE, STRANDED, TEF, YEL 14AWG	99	WC	X	3		C	U	FT	1					10	0	911-011
012	8163-2077		WIRE, STRANDED, TEF, WHT/BLU 14AWG	99	WC	X	3		C	U	FT	0					10	0	911-011
014	8163-2041		WIRE, STRANDED, TEF, RED 18AWG	99	WC	X	1		C	U	FT	0					10	0	911-011
016	8163-2044		WIRE, STRANDED, TEF, WHT/GRY 18AWG	99	WC	X	3		C	U	EA	0					10	0	911-011
018	8163-2039		WIRE, STRANDED, TEF, YEL 18AWG	99	WC	X	3		C	U	FT	0					10	0	911-011
020	8163-2045		WIRE, STRANDED, TEF, WHT/VIO 18AWG	99	WC	X	3		C	U	EA	0					10	0	911-011
022	8163-2051		WIRE, STRANDED, TEF, WHT/YEL 18AWG	99	WC	X	3		C	U	FA	0					10	0	911-011
024	8163-2052		WIRE, STRANDED, TEF, BLU 18AWG	99	WC	X	3		C	U	FA	0					10	0	911-011
026	8163-2053		WIRE, STRANDED, TEF, GRN 18AWG	99	WC	X	1		C	U	FT	0					10	0	911-011
030	6038-0005		DIODE, SIGNAL (1N914)	99	MC	P	1	S	C	P	EA	1					10	0	911-011
034	8163-1006		WIRE, 26 AWG, WHT, SOLID	95	CW	X	1		*	U	FT	1					10	0	911-011

NOTES:

REV 1 PRE-RELEASE
REV 2 RELEASED PER ECN 2775

EFFECTIVITY DATE: ALL

S I N G L E L E V E L B I L L S O F M A T E R I A L

PARENT PART: 2511-2018 * PANEL ASSY, FRONT VCS UM: EA PROD CODE: 98 ECN: 2787 ASSEMBLY QTY: 1
ERC: SRCE CODE: 1 TYPE: 1 ABC: B PLAN CODE: P DATE: 17-OCT-83

ITEM NO	COMPONENT PART NUMBER	ER	DESCRIPTION REMARKS	PR CD	COMM CODE	S C	T Y	S P	A B	? _	UM	EXTENDED QTY PER	START DATE	S/N	CLOSE DATE	S/N	OPR SEQ	LT OFF	STORES ACCOUNT
-A	2511-2018-1L		LIST OF MTL, PANEL ASSY, FRONT VCS	98		D	1		*	J	EA	0					10	0	011-011
-B	2511-2018-1D		ASSY DWG, PANEL ASSY, FRONT VCS	98		D	1		*	J	EA	0					10	0	011-011
001	2511-8010		PANEL, FRONT VCS	98	FD	P	1		B	P	EA	1					10	0	011-011
002	2511-8022		SCREEN PLATE, FRONT VCS	98	FD	P	1		C	P	EA	1					10	0	011-011
003	5793-2002		NUT, 6-32, KEP	99		X	1		C	J	EA	14					10	0	011-011
004	5193-0019		FASTENER STRIP, ARROWH 1.0XA/G LG	99		X	3		C	U	FT	1					10	0	011-011
005	5270-4531		FILTER FOAM, 5.62 X 16.50 LG	93	XK	P	1		C	P	EA	1					10	0	011-011
006	4320-0390		CLAMP, CABLE 1/4IN	99		X	3		C	U	EA	1					10	0	011-011
009	2511-8000		PANEL, BNC FRONT MTG	98	FD	P	1		B	P	EA	1					10	0	011-011
010	5793-0015		NUT, HEX, 6-32 NC (SMALL PATT)	99		X	3		C	U	EA	2					10	0	011-011
011	8043-2002		WASHER, LOCK, NO. 6	99		X	3		D	U	EA	2					10	0	011-011
012	7910-0421		SWITCH TOGGLE BLACK ROCKER	94	SK	P	1		C	P	EA	1					10	0	011-011
016	2511-2039	*	CABLE ASSY, VCS FRONT PANEL	99		A	1		C	P	EA	1					10	0	011-011

NOTES:

REV 1 PRE-RELEASE
REV 2 REVISED PER ECN 2692
REV 3 REVISED PER ECN 2731
REV 4 RELEASED PER ECN 2787

END OF REPORT

EFFECTIVITY DATE: ALL

S I N G L E L E V E L B I L L S O F M A T E R I A L

PARENT PART: 2511-2019 * CABLE ASSY, BACKPLANE POWER P2/P3 UM: EA PROD CODE: 98 ECN: 2775 ASSEMBLY QTY: 1
ERC: SRCE CODE: A TYPE: 1 ABC: C PLAN CODE: P DATE: 29-SEP-81

ITEM NO	COMPONENT PART NUMBER	E N	DESCRIPTION / REMARKS	PR CD	COMM CODE	S C	T Y	S P	A B	P L	UM	EXTENDED QTY PER	START DATE	START S/N	CLOSE DATE	CLOSE S/N	OPR SEQ	LT OFF	STORES ACCOUNT
-A	2511-2019-11		LIST OF MTL, BACKPLANE POWER P2/P3	98		D	1		•	U	EA	0					10	0	011-011
-B	2511-2019-1P		ASSY DWG, BACKPLANE POWER P2/P3	98		D	1		•	U	EA	0					10	0	011-011
-D	2511-2019-4D		WIRELIST, BACKPLANE POWER P2/P3	98		D	1		•	U	EA	0					10	0	011-011
001	4213-0100		CONN, 9 PIN, PIN HOUSING P2,3	99	WC	P	1		C	P	EA	2					10	0	011-011
003	4213-0101		CONTACT, PIN 14-20 AWG P2-1,2-2,3-1,3-2	99	WC	P	1		C	P	EA	4					10	0	011-011
005	4213-0098		CONTACT, PIN 18-24 AWG P2-3 - P2-9, P3-3 - P3-8	99	WC	P	1		C	P	EA	13					10	0	011-011
010	8163-2075		WIRE, STRANDED, TEF, YEL 14AWG	99	WC	X	3		C	U	FT	0					10	0	011-011
012	8163-2077		WIRE, STRANDED, TEF, WHT/BLU 14AWG	99	WC	X	3		C	U	FT	6					10	0	011-011
014	8163-2041		WIRE, STRANDED, TEF, RED 18AWG	99	WC	X	1		C	U	FT	0					10	0	011-011
016	8163-2043		WIRE, STRANDED, TEF, BLK 18AWG	99	WC	X	3		C	U	FT	6					10	0	011-011
018	8163-2044		WIRE, STRANDED, TEF, WHT/GRY 18AWG	99	WC	X	3		C	U	EA	6					10	0	011-011
020	8163-2045		WIRE, STRANDED, TEF, WHT/VIO 16AWG	99	WC	X	3		C	U	EA	0					10	0	011-011
022	8163-2046		WIRE, STRANDED, TEF, GRN 18AWG	99	WC	X	3		C	U	EA	0					10	0	011-011
024	8163-2050		WIRE, STRANDED, TEF, WHT/ORN 18AWG	99	WC	X	3		C	U	EA	0					10	0	011-011
026	8163-2051		WIRE, STRANDED, TEF, WHT/YEL 18AWG	99	WC	X	3		C	U	EA	0					10	0	011-011
028	8163-2052		WIRE, STRANDED, TEF, BLU 18AWG	99	WC	X	3		C	U	EA	6					10	0	011-011
030	8163-2053		WIRE, STRANDED, TEF, GRN 18AWG	99	WC	X	1		C	U	FT	0					10	0	011-011
032	8163-2039		WIRE, STRANDED, TEF, YEL 18AWG	99	WC	X	3		C	U	FT	6					10	0	011-011
034	7920-0662		TERMINAL RING YLW #10 AWG 1/4 SCREW	93	HS	P	1		C	P	EA	3					10	0	011-011
036	7923-2034		TERMINAL, SLOTTED TONGUE, NO.6	93		X	1		C	U	EA	0					10	0	011-011
038	7920-0665		TERMINAL RING RED #18 AWG 1/4 SCREW	93	HS	P	1		C	P	EA	1					10	0	011-011
040	7920-0560		TERMINAL FORK FLANGE TONGUE RED	93	HC	P	1		C	P	EA	4					10	0	011-011
042	7920-0665		TERMINAL, 16-22 AWG, #6 RING	93	HS	P	1		C	P	EA	4					10	0	011-011

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EFFECTIVITY DATE: ALL

S I N G L E L E V E L B I L L S O F M A T E R I A L

PARENT PART: 2511-2012 * CABLE ASSY, DISC POWER UM: EA PROD CODE: 98 ECN: 2709 ASSEMBLY QTY: 1

ERC: SRCE CODE: A TYPE: 1 ABC: C PLAN CODE: P DATE: 06-APR-83

ITEM NO	COMPONENT PART NUMBER	E R	DESCRIPTION REMARKS	PR CD	COMM CODE	S C	T Y	S P	A B	P L	UM	EXTENDED QTY PER	START DATE	START S/N	CLOSE DATE	CLOSE S/N	OPR SEQ	LT OFF	STORES ACCOUNT
-A	2511-2012-1L		LIST OF MTL, DISC POWER	98		D	1		*	U	EA	0					10	0	011-011
-B	2511-2012-1D		ASSY DWG, DISC POWER	98		D	1		*	U	EA	0					10	0	011-011
-D	2511-2012-4D		WIRELIST, DISC POWER	98		D	1		*	U	EA	0					10	0	011-011
001	4220-4760		CONN HOUSING, 4 POS (1-480703-0)	98	NI	P	1		C	P	EA	2					10	0	011-011
003	4270-4161		TERMINAL, 14-20 AWG SOCKET	98	HG	P	1		C	P	EA	8					10	0	011-011
005	8163-2075		WIRE, STRANDED, TEF, YEL 14AWG	99	WC	X	3		C	U	FT	0					10	0	011-011
007	8163-2077		WIRE, STRANDED, TEF, WHT/BLU 14AWG	99	WC	X	3		C	U	FT	0					10	0	011-011
009	8163-2041		WIRE, STRANDED, TEF, RED 18AWG	99	WC	X	1		C	U	IN	0					10	0	011-011
011	8163-2052		WIRE, STRANDED, TEF, BLU 18AWG	99	WC	X	3		C	U	EA	0					10	0	011-011
013	7923-0034		TERMINAL, SLOTTED TONGUE, NO.6	99		X	3		C	U	EA	2					10	0	011-011
015	7920-0662		TERMINAL RING YLW #10 AWG 1/4 SCREW	93		P	1		C	P	EA	2					10	0	011-011
017	4313-0005		TIE WRAP, W/MARKER	99		X	3		C	U	EA	1					10	0	011-G11
019	4313-0000		TIE WRAP, CABLE	24		X	3		C	U	EA	2					10	0	011-G11

NOTES:

REV 1 PRE-RELEASE
REV 2 REVISED PER ECN 2692
REV 3 REVISED PER ECN 2709

END OF REPORT

EFFECTIVITY DATE: ALL

S I N G L E L E V E L B I L L S O F M A T E R I A L

PARENT PART: 2511-2019 * CABLE ASSY, BACKPLANE POWER P2/P3 UM: EA PROD CODE: 98 ECN: 2775 ASSEMBLY QTY: 1
ERC: SPCE CODE: A TYPE: 1 ABC: C PLAN CODE: P DATE: 29-SEP-83

ITEM NO	COMPONENT PART NUMBER	C R	DESCRIPTION REMARKS	PR CD	COMM CODE	S C	T Y	S P	A R	P L	UM	EXTENDED QTY PER	START DATE	START S/N	CLOSE DATE	CLOSE S/N	OPR SEQ	LT OFF	STORES ACCOUNT
	REV 1		PRE-RELEASE																
	REV 2		RELEASED PER ECN 2775																

EFFECTIVITY DATE: ALL

SINGLE LEVEL BILLS OF MATERIAL

PARENT PART: 2511-2022 • CRT 12", BASIC ASSY UM: EA PROD CODE: 98 ECN: 0835 ASSE MFY QTY: 1
ERC: SRCE CODE: A TYPE: 1 ABC: A PLAN CODE: F DATE: 28-MAR-84

ITEM NO	COMPONENT PART NUMBER	E R	DESCRIPTION / REMARKS	PR CD	COMM CODE	S C	I Y	S ?	A B	P L	UM	EXTENDED QTY PER	START DATE	S/N	CLOSE DATE	S/N	OPER SEQ	LT OFF	ACCOUNT
-4	2511-2022-1L		LIST OF MTL, CRT 12", BASIC ASSY	98		D	1		*	U	EA	0*					10	0	011-011
-B	2511-2022-1D		ASSY DWG, CRT 12", BASIC ASSY	98		D	1		*	U	EA	0					10	0	011-011
-C	2511-2022-2D		SCHEM, CRT 12", BASIC ASSY	98		D	1		*	U	EA	0					10	0	011-011
01	2501-6631		SUPPORT, CRT	93	FO	P	1		C	P	EA	1					10	0	011-011
02	2511-8032		CHASSIS, CRT	98	FO	P	1		B	P	EA	1					10	0	011-011
03	2511-8033		COVER, CRT	98	FO	P	1		B	P	EA	1					10	0	011-011
04	2511-8034		BEZEL, CRT	98	FC	P	1		B	P	EA	1					10	0	011-011
05	2501-2023		CABLE ASSEMBLY, BNC VIDEO / W1 (J2 - VIDEO IN)	93		A	1		C	P	EA	1					10	0	011-011
06	1765-5536		MONITOR, P39 PHOSPHOR, 12",COMP VID	98	EA	P	1		A	P	EA	1					10	0	011-011
08	2501-2028		HARNESS, CRT	93		A	1		C	P	EA	1					10	0	011-011
09	7673-0017		SWITCH, SLIDE / SW2	92	SJ	P	1		C	P	EA	1					10	0	011-011
10	7693-9037		SWITCH, PWR / SW1	92	SL	P	1		C	P	EA	1					10	0	011-011
11	7693-9038		BEZEL, PANEL MOUNT .090 (BLACK) / (FOR SW 1)	92	FO	P	1		C	P	EA	1					10	0	011-011
12	5650-0100		FUSE HOLDER / XF1	99	XO	P	1		C	P	EA	1					10	0	011-011
13	4240-0250		CONN, PWR PLUG / J1	92	WI	P	1		C	P	EA	1					10	0	011-011
14	7043-1110		SCREW, PAN HD, 10-32 X 5/8LG	99	HC	X	1		C	P	EA	2					10	0	011-011
15	5655-0156		O-RING 5/32ID	99	FL	P	1		C	P	EA	2					10	0	011-011
16	5253-4003		FOOT, RUBBER	92	HN	P	1		C	P	EA	4					10	0	011-011
17	7670-0721		SPRING EXTENSION 1.37LG .029 WIRE / (HOLDING CRT BEZEL)	93	XO	P	1		C	P	EA	2					10	0	011-011
21	7265-0106		SCREW, 10-32X1/2 TRUSS HEAD S/S / FOR MTG CRT/SUPPORT	94	HC	X	1		*	P	EA	6					10	0	011-011
24	5793-2004		NUT, HEX, KEP 10-32 / FOR MTG CRT/SUPPORT	99	HA	X	1		C	P	EA	2					10	0	011-011
26	5793-2001		NUT, MACH #4 KEP SS / FOR SW1,SW2 & J1	99	HA	X	3		C	P	EA	8					10	0	011-011
28	5793-2002		NUT, 6-32, KEP	99	HA	X	1		C	P	EA	3					10	0	011-011
30	6063-1009		WASHER, FLAT, NO 10	97	HD	X	1		C	P	EA	2					10	0	011-011

EFFECTIVITY DATE: ALL

SINGLE LEVEL BILLS OF MATERIAL

PARENT PART: 2511-2022 • CRT 12", BASIC ASSY U/M: EA PROD CODE: 9[illegible] ECN: 2855 ASSEMBLY QTY: 1
ERC: SRCE CODE: A TYPE: 1 ABC: A PLAN CODE: F DATE: 2[illegible]-MAR-84

ITEM NO	COMPONENT PART NUMBER	E R	DESCRIPTION / REMARKS	PR CD	COMP CODE	S C	T Y	S ?	A B	? L	UM	EXTENDED QTY PER	START DATE	S/N	CLOSE DATE	S/N	OPR SEQ	LT OFF	STORES ACCOUNT
036	5810-1000		NUT, 3/8-32, 1/2W 3/32 PANEL MOUNT	99	HA		X	1	C	P	EA	2					10	0	511-[illegible]11
0[illegible]9	805[illegible]-0400		WASHER, 3/8 INT LOCK	99	HA		X	1	C	P	EA	2					10	0	511-[illegible]11

NOTES:

REV 1 PRE-RELEASE
REV 2 RELEASED PER ECN 2855

EFFECTIVITY DATE: ALL

S I N G L E L E V E L B I L L S O F M A T E R I A L

PARENT PART: 2511-2023 * CABLE ASSY, Q-DAS I/O SIGNALS UM: EA PROD CODE: 98 ECN: 2793 ASSEMBLY QTY: 1
ERC: SRCE CODE: A TYPE: 1 ABC: C PLAN CODE: P DATE: 02-NOV-83

ITEM NO	COMPONENT PART NUMBER	E R	DESCRIPTION REMARKS	PR CD	COMM CODE	S C	T Y	S P	A B	P L	UM	EXTENDED QTY PER	START DATE	S/N	CLOSE DATE	S/N	OPR SEQ	LT OFF	STORES ACCOUNT
-A	2511-2023-1L		LIST OF MTL, Q-DAS I/O SIGNALS	98		D	1		*	U	EA	0					10	0	011-011
-C	2511-2023-2D		SCHEM, Q-DAS I/O SIGNALS	98		D	1		*	J	EA	0					10	0	011-011
-D	2511-2023-4D		WIRELIST, Q-DAS I/O SIGNALS	98		D	1		*	J	EA	0					10	0	011-011
002	4213-0066		CONN, BULKHEAD RCPTL, BNC	90	NA	P	1		B	P	EA	2					10	0	011-011
003	4213-0161		CONNECTOR,BNC,RECPT	92	NA	P	1		B	P	EA	1					10	0	011-011
004	4220-2711		CONN, BNC BULKHEAD JACK TO JACK	98	NC	P	1		C	P	EA	1					10	0	011-011
006	4213-0029		CONN, PLUG COAX, BNC	90	NA	P	1		B	P	EA	2					10	0	011-011
008	4213-0049		CONN, PLUG RT ANGL MINI COAX	93	NI	P	1		C	P	EA	3					10	0	011-011
010	4220-2710		CONN, BNC TEE, 2 JACK, 1 PLUG	98	NC	P	1		C	P	EA	1					10	0	011-011
012	8163-3000		WIRE, SHIELDED CABLE (RG174A/U)	99	WC	X	1		C	U	FT	8					10	0	011-011
014	4313-0000		TIE WRAP, CABLE	97		X	1		C	U	EA	5					10	0	011-011
016	4313-0005		TIE WRAP, W/MARKER	99		X	1		C	U	EA	1					10	0	011-011

NOTES:

REV 1 PRE-RELEASE ECN 2708
REV 2 RELEASED PER ECN 2793

PRINTED 27-JUN-83 11:34 GENRAD - VAC ESI & REVISION 24-FEB-83 PAGE 1

EFFECTIVITY DATE: ALL

S I N G L E L E V E L B I L L S O F M A T E R I A L

PARENT PART: 2511-2024 CABLE ASSY, CHANNEL SELECTOR (EXT) UM: EA PROD CODE: 97 ECN: ASSEMBLY QTY: 1

ERC: SFC CODE: A TYPE: 1 ABC: C PLAN CODE: F DATE: 24-MAY-83

ITEM NO	COMPONENT PART NUMBER	E R	DESCRIPTION / REMARKS	PR CD	COMM CODE	S C	T Y	S P	A B	P L	UM	EXTENDED QTY PER	START DATE	S/N	CLOSE DATE	S/N	OPR SEQ	LT OFF	STORES ACCOUNT
-A	2511-2024-1L		LIST OF MTL, CHANNEL SELECTOR (EXT)	98		D	1		*	U	EA	0					10	0	311-311
-B	2511-2024-1D		ASSY DWG, CHANNEL SELECTOR	98		D	1		*	U	EA	0					10	0	311-911
001	4220-5632		CONN, 9 PIN "D", FLAT CABLE	98	NI	P	1		C	P	EA	1					10	0	311-911
003	4220-5643		CONN HOOD, 9 POS "D" (T&P)	98	NI	P	1		C	P	EA	1					10	0	311-911
005	4220-6030		JACKSCREW ASSEMBLY	94	NI	P	1		C	P	ST	1					10	0	311-911
007	0034-7165		CABLE, FLAT 9 COND 28 AWG	98	WA	X	1		C	U	FT	5					10	0	311-911

NOTES:

REV 1 RELEASED PER PRS 3254

DSAINTC. JAN-84 15:24 CMR VAX DMS VERSION 02-FEB-82 1

EFFECTIVITY DATE: ALL

S I N G L E L E V E L B I L L S O F M A T E R I A L

PARENT PART: 2511-2025 • CABLE ASSY, CHANNEL SELECT (INTEL) UM: EA PROD CODE: 98 FCN: REL ASSEMBLY QTY: 1
ENG: SRCE CODE: A TYPE: 3 ABC: C PLAN CODE: 1 DATE: 12-JAN-84

ITEM NO	COMPONENT PART NUMBER	F K	DESCRIPTION / REMARKS	PR CD	CORR CODE	S C	I Y	S P	A B	P L	UM	EXTENDED QTY PER	START DATE	S/N	CLOSE DATE	S/N	OPR SEQ	LT OFF	STORES ACCOUNT
-A	2511-2025-1L		LIST OF MTL, CHANNEL SELECT (INTEL)	98		D	1		*	U	EA	0					10	0	111-011
-B	2511-2025-1D		ASSY DWG, CHANNEL SELECT (INTEL)	98		D	1		*	U	EA	0					10	0	111-011
-C	2511-2025-4D		WIRELIST, CHANNEL SELECT (INTEL)	98		D	1		*	U	EA	0					10	0	111-011
01	4220-2041		CONN HOUSING, 14 POS POLARIZED	95	NI	P	1		C	P	EA	1					10	0	111-011
03	4220-5636		CONN, FLAT CABLE, 9 SKT (D TYPE) / P2	99	NI	P	1		C	P	EA	1					10	0	111-011
05	4103-3016		CABLE, FLAT, 26 COND, 28 AWG, (STR)	99	WC	X	1		C	U	FT	2					10	0	111-011
07	4270-0776		TERMINAL, 22-26 AWG, MINI PV RECEPT	99	HG	P	1		6	P	EA	7					10	0	111-011
09	4220-5847		JACK SOCKET ASSEMBLY	94	NH	P	1		C	P	ST	1					10	0	111-011
11	4233-4648		POLARIZING PLUG, BERG .1X.1 MSC	98	NI	P	1		C	P	EA	4					10		11-011

NOTES:

REV 1 RELEASED PER PRN 3294
REV 2 REVISED PER ECN 3822

END OF REPORT

PRINTED 04-NOV-83 08:00 GENRAD - VAD BML VERSION 08-FEB-82 PAGE 1

EFFECTIVITY DATE: ALL

S I N G L E L E V E L B I L L S O F M A T E R I A L

PARENT PART: 2511-2027 * CABLE ASSY, PARALLEL INTERFACE I/O UM: EA PROD CODE: 98 ECN: 2797 ASSEMBLY QTY: 1
ERC: SRCE CODE: A TYPE: 1 ABC: C PLAN CODE: P DATE: 02-NOV-83

ITEM NO	COMPONENT PART NUMBER	E R	DESCRIPTION / REMARKS	PR CD	COMM CODE	S C	T Y	S P	A B	?	UM	EXTENDED QTY PER	START DATE	S/N	CLOSE DATE	S/N	OPR SEQ	LT OFF	STORES ACCOUNT
-A	2511-2027-1L		LIST OF MTL,CABLE,PARALLEL INT I/O	98		D	1		*	J	EA	0					10	0	011-011
-B	2511-2027-1D		ASSY DWG,CABLE,PARALLEL INT I/O	98		D	1		*	J	EA	0					10	0	011-011
-D	2511-2027-4D		WIRE LIST,CABLE,PARALLEL INT I/O	98		D	1		*	J	EA	0					10	0	011-011
001	4213-0000		CONN, 44 PIN / P1,2	99	NC	P	1		C	P	EA	2					10	0	011-011
002	4230-4648		POLARIZING PLUG, BERG .1X.1 HSG	98	NI	P	1		C	P	EA	8					10	0	011-011
003	7923-0028		PIN, CRIMP, BERG	99	XO	P	1		C	P	EA	34					10	0	011-011
005	4220-0170		CONN, PLUG, 25 PIN / J1	99	NC	P	1		C	P	EA	1					10	0	011-011
007	4213-0037		CONN, PLUG 25 PIN FEMALE / P3	90	NC	P	1		B	P	EA	1					10	0	011-011
009	4220-5847		JACK SOCKET ASSEMBLY	94	NH	P	1		C	P	ST	2					10	0	011-011
011	8163-2012		WIRE, STRANDED, TEF, WHT, 24AWG	99	WC	X	3		C	J	FT	100					10	0	011-011
013	8163-2039		WIRE, STRANDED, TEF, YEL 18AWG	99	WC	X	3		C	J	FT	2					10	0	011-011
015	7920-0662		TERMINAL RING YLW #10 AWG 1/4 SCREW	93	HG	P	1		C	P	EA	1					10	0	011-011
017	4313-0005		TIE WRAP, W/MARKER	99		X	1		C	J	EA	1					10	0	011-011
019	4313-0000		TIE WRAP, CABLE	97		X	1		C	J	EA	12					10	0	011-011
019	8453-3913		SLEEVING, SHRINK 3/8 DIA	99		X	1		C	J	IN	64					10	0	011-011

NOTES:

REV A RESTRICTED RELEASE
REV 1 RELEASED PER PRB #3208
REV 2 REVISED PER ECN 2797

END OF REPORT

PRINTED 25-OCT-83 12:27 GENRAD - VAD RML VERSION 03-FEB-82 PAGE 1

EFFECTIVITY DATE: ALL

S I N G L E L E V E L B I L L S O F M A T E R I A L

PARENT PART: 2511-2028 CABLE ASSY, COMMANDS FROM REMOTE UM: EA PROD CODE: 98 ECN: ASSEMBLY QTY: 1

ERC: SPCE CODE: A TYPE: 1 ABC: C PLAN CODE: P DATE: 18-MAY-83

ITEM NO	COMPONENT PART NUMBER	E R	DESCRIPTION / REMARKS	PR CD	COMM CODE	S C	T Y	S P	A B	?	UM	EXTENDED QTY PER	START DATE	S/N	CLOSE DATE	S/N	OPR SEQ	LT OFF	STORES ACCOUNT
-A	2511-2028-1L		LIST OF MTL,CABLE,COMMANDS FROM REM	98		D	1		*	J	EA	0					10	0	011-011
-B	2511-2028-1D		ASSY DWG,CABLE,COMMANDS FROM REMOTE	98		D	1		*	J	EA	0					10	0	011-011
-D	2511-2028-4D		WIRE LIST,CABLE,COMMANDS FROM REM	98		D	1		*	J	EA	0					10	0	011-011
002	4220-0170		CONN, PLUG, 25 PIN	99	NC	P	1		C	P	EA	1					10	0	011-011
004	4213-0099		HOOD, CONN	99	NI	P	1		C	P	EA	1					10	0	011-011
006	8163-2012		WIRE, STRANDED, TEF, WHT, 24AWG	99	WC	X	3		C	U	FT	120					10	0	011-011
008	8163-2039		WIRE, STRANDED, TEF, YEL 18AWG	99	WC	X	3		C	J	FT	8					10	0	011-011
010	8163-2043		WIRE, STRANDED, TEF, BLK 18AWG	99	WC	X	3		C	J	FT	8					10	0	011-011
012	8163-2019		WIRE, STRANDED, TEF, YEL, 22 AWG	99	WC	X	1		C	U	FT	6					10	0	011-011
014	9433-3015		SLEEVING, SHRINK 1/2 ID	99		X	3		D	U	FT	8					10	0	011-011
015	9433-3014		SLEEVING, SHRINK 1/4 DIA	99		X	1		C	U	IN	2					10	0	011-011
019	4313-0000		TIE WRAP, CABLE	97		X	1		C	U	EA	8					10	0	011-011
020	4313-0005		TIE WRAP, W/MARKER	99		X	1		C	J	EA	1					10	0	011-011

NOTES:

REV A RESTRICTED RELEASE

REV 1 RELEASED PER PRB #3208

PRINTED 25-OCT-83 12:27 GENRAD - VAD BML VERSION 08-FEB-82 PAGE 1

EFFECTIVITY DATE: ALL

S I N G L E L E V E L B I L L S O F M A T E R I A L

PARENT PART: 2511-2029 CABLE ASSY, STATUS TO REMOTE UM: EA PROD CODE: 98 ECN: ASSEMBLY QTY: 1
ERC: SRCE CODE: A TYPE: 1 ABC: C PLAN CODE: P DATE: 10-MAY-83

ITEM NO	COMPONENT PART NUMBER	E R	DESCRIPTION / REMARKS	PR CD	COMM CODE	S C	T Y	S P	A B	? _	UM	EXTENDED QTY PER	START DATE	S/N	CLOSE DATE	S/N	OPR SEQ	LT OFF	STORES ACCOUNT
-A	2511-2029-1L		LIST OF MTL, CABLE,STATUS TO REMOTE	98		D	1		*	U	EA	0					10	0	011-011
-0	2511-2029-1D		ASSY DWG, CABLE,STATUS TO REMOTE	98		D	1		*	U	EA	0					10	0	011-011
-0	2511-2029-4D		WIRE LIST, CABLE,STATUS TO REMOTE	98		D	1		*	U	EA	0					10	0	011-011
002	4213-3037		CONN, PLUG 25 PIN FEMALE	90	NC	P	1		B	P	EA	1					10	0	011-011
004	4213-0099		HOOD, CONN	99	NI	P	1		C	P	EA	1					10	0	011-011
006	8163-2012		WIRE, STRANDED, TEF, WHT, 24AWG	99	WC	X	3		C	J	FT	120					10	0	011-011
010	8163-2043		WIRE, STRANDED, TEF, BLK 18AWG	99	WC	X	3		C	J	FT	6					10	0	011-011
014	8433-3015		SLEEVING, SHRINK 1/2 ID	00		X	3		D	U	FT	8					10	0	011-011
016	4313-0000		TIE WRAP, CABLE	97		X	1		C	J	EA	8					10	0	011-011
018	4313-0005		TIE WRAP, W/MARKER	99		X	1		C	U	EA	1					10	0	011-011

NOTES:

REV A RESTRICTED RELEASE
REV 1 RELEASED PER PRB #3208

END OF REPORT

EFFECTIVITY DATE: ALL

SINGLE LEVEL BILLS OF MATERIAL

PARENT PART: 2511-2030 • CABLE ASSY, RS-232 INTERFACE UM: EA PROD CODE: 98 ECN: 2870 ASSEMBLY QTY: 1
ERC: SRCE CODE: A TYPE: 1 ABC: C PLAN CODE: F DATE: 02-MAY-84

ITEM NO	COMPONENT PART NUMBER	E K	DESCRIPTION / REMARKS	PR CD	COMM CODE	S C	I Y	S ?	A B	P L	UM	EXTENDED QTY PER	START DATE	S/N	CLOSE DATE	S/N	OPR SEQ	LT OFF	STORES ACCOUNT
-A	2511-2030-1L		LIST OF MTL, RS-232 INTERFACE	98		D	1		•	U	EA	0					10	0	011-011
-B	2511-2030-1D		ASSY DWG, RS-232 INTERFACE	98		D	1		•	U	EA	0					10	0	011-011
-B	2511-2030-4D		WIRELIST, RS-232 INTERFACE	98		D	1		•	U	EA	0					10	0	011-011
001	4220-0170		CONN, PLUG, 25 PIN J1-4	99	NC	P	1		C	P	EA	4					10	0	011-011
002	4230-4728		HOUSING, 10 POS (AMP 87631-6) P1-4	95	NI	P	1		C	P	EA	4					10	0	011-011
003	4220-8524		TERM, 20 TO 24 AWG, AU	95	HG	P	1		C	P	EA	28					10	0	011-011
004	6450-0750		RESISTOR, 750 OHM, 1/2W, 5% R1-4	95	RC	P	1		C	P	EA	4					10	0	011-011
005	7520-0484		TERM, 16-22 AWG, #4 STUD	94	HC	X	1		*	P	EA	4					10	0	011-011
006	8163-2057		WIRE,22 AWG,BLK,STRANDED,IRR PVC	59	CW	X	1		*	P	FT	25					10	0	011-011
007	8163-2023		WIRE, STRANDED, TEF, BRN, 22 AWG	99	WC	X	1		C	P	FT	12					10	0	011-011
008	8163-2026		WIRE, STRANDED, TEF, ORN 22 AWG	00	WC	X	3		D	P	FT	12					10	0	011-011
009	8163-2019		WIRE, STRANDED, TEF, YEL, 22 AWG	99	WC	X	1		C	P	FT	12					10	0	011-011
010	8163-2018		WIRE, STRANDED, TEF, WHT, 22AWG	99	WC	X	3		C	P	FT	2					10	0	011-011
011	8433-3013		SLEEVING, SHRINK 3/8 DIA	99	WG	X	1		C	P	IN	4					10	0	011-011
012	4313-0000		TIE WRAP, CABLE	97	HP	X	1		C	P	EA	16					10	0	011-011
013	4313-0005		TIE WRAP, W/MARKER	99	HP	X	1		C	P	EA	1					10	0	011-011

NOTES:

REV 1 RELEASED PER PRD 3205
REV 2 REVISED PER ECN 2870

END OF REPORT *

EFFECTIVITY DATE: ALL

SINGLE LEVEL BILLS OF MATERIAL

PARENT PART: 2511-2031 * CABLE ASSY,ADD ON MINIFLOPPY,SIGNAL UM: EA PROD CODE: 98 ECN: 2775 ASSEMBLY QTY: 1
ERC: SPCE CODE: 4 TYPE: 1 ABC: C PLAN CODE: P DATE: 29-SEP-83

ITEM NO	COMPONENT PART NUMBER	E C	DESCRIPTION / REMARKS	PR CD	COMM CODE	S C	T Y	S P	A B	P _	UM	EXTENDED QTY PER	START DATE	START S/N	CLOSE DATE	CLOSE S/N	OPR SEQ	LT OFF	STORES ACCOUNT
-A	2511-2031-1L		LIST OF MTL,ADD ON MINIFLOPPY,SIG	98		D	1		*	U	EA	0					10	0	011-011
-B	2511-2031-1D		ASSY DWG, ADD ON MINIFLOPPY, SIG	99		D	1		*	U	EA	0					10	0	011-011
002	4230-4755		CONN, 34 POS, CARD EDGE RIBBON	95	NG	P	1		C	P	EA	2					10	0	011-011
004	4220-5834		CONN PLUG 37 PIN MALE	94	NC	P	1		C	P	EA	1					10	0	011-011
006	0034-7064		CABLE, 28 AWG, 34 COND, RIBBON	98	CJ	X	1		*	J	FT	7					10	0	011-011
008	4220-5840		BACKSHELL CONN 37 POS	94	NI	P	1		C	P	EA	1					10	0	011-011
010	4220-6030		JACKSCREW ASSEMBLY	94	NI	P	1		C	P	ST	1					10	0	011-011
012	4230-9281		KEY, POLARIZING (3M)	95	CJ	X	1		C	U	EA	2					10	0	011-011

NOTES:

REV 1 RELEASED PER PRB 3206
REV 2 REVISED PER ECN 2775

EFFECTIVITY DATE: ALL

S I N G L E L E V E L B I L L S O F M A T E R I A L

PARENT PART: 2511-2032 * CABLE ASSY, ADD ON MINI FLOPPY, PWR UM: EA PROD CODE: 98 ECN: 2775 ASSEMBLY QTY: 1
ERC: SRCE CODE: A TYPE: 1 ABC: G PLAN CODE: P DATE: 29-SEP-83

ITEM NO	COMPONENT PART NUMBER	ER	DESCRIPTION / REMARKS	PR CD	COMM CODE	SC	TY	SP	AB	PL	UM	EXTENDED QTY PER	START DATE	S/N	CLOSE DATE	S/N	OPR SEQ	LT OFF	STORES ACCOUNT
-1	2511-2032-1L		LIST OF MTL, ADD ON MINI FLOPPY,PWR	98		D	1		*	U	EA	0					10	0	011-011
-B	2511-2032-1D		ASSY DWG, ADD ON MINI FLOPPY, PWR	98		D	1		*	U	EA	0					10	0	011-011
-C	2511-2032-4D		WIRELIST, ADD ON MINI FLOPPY, PWR	98		D	1		*	U	EA	0					10	0	011-011
001	4220-4750		HOUSING, 4 POS, PLUG J1	98	NI	P	1		C	P	EA	1					10	0	011-011
002	4270-4160		PIN, CONTACT, MALE (14-20)	99	NC	P	1		C	P	EA	4					10	0	011-011
003	4220-3505		CONN HOUSING, 4 POS, SOCKETS P1,2	95	NI	P	1		C	P	EA	2					10	0	011-011
004	4213-0108		CONTACT, CONN SOCKET, 14-20 AWG	99	NI	P	1		C	P	EA	8					10	0	011-011
008	8433-3018		SLEEIVNG, INSUL 1/4 ID	99		X	3		C	U	FT	7					10	0	011-011
009	9163-2040		WIRE INSULATED, STR 18, BRN	99	WC	X	3		C	U	FT	7					10	0	011-011
010	9163-2041		WIRE, STRANDED, TEF, RED 18AWG	99	WC	X	1		C	U	FT	7					10	0	011-011
011	9163-2043		WIRE, STRANDED, TEF, BLK 18AWG	99	WC	X	3		C	U	FT	7					10	0	011-011
012	9163-2053		WIRE, STRANDED, TEF, ORN 18AWG	99	WC	X	1		C	U	FT	7					10	0	011-011

NOTES:

REV 1 RELEASED PER PRR 3206
REV 2 REVISED PER ECN 2775

END OF REPORT

EFFECTIVITY DATE: ALL

S I N G L E L E V E L B I L L S O F M A T E R I A L

PARENT PART: 2511-2033 CABLE ASSY, WINCHESTER (EXT) UM: EA PROD CODE: 98 ECN: ASSEMBLY QTY: 1
ERC: SRCE CODE: A TYPE: 1 ABC: C PLAN CODE: P DATE: 10-AUG-83

ITEM NO	COMPONENT PART NUMBER	E R	DESCRIPTION / REMARKS	PR CD	COMM CODE	S C	T Y	S P	A B	P L	UM	EXTENDED QTY PER	START DATE	START S/N	CLOSE DATE	CLOSE S/N	OPR SEQ	LT OFF	STORES ACCOUNT
-A	2511-2033-1L		LIST OF MTL, WINCHESTER (EXT)	98		D	1		*	U	EA	0					10	0	011-011
-B	2511-2033-1D		ASSY DWG, WINCHESTER (EXT)	98		D	1		*	U	EA	0					10	0	011-011
001	4220-7610		CONN, 50 COND, MALE RIBBON	95	NI	P	1		C	P	EA	1					10	0	011-011
003	4220-5846		CONN, 50 POS, RIBBON BACKSHELL	95	NI	P	1		C	P	EA	1					10	0	011-011
005	4230-9054		CONN, RIBBON, 34POS, CARD EDGE	95	NG	P	1		B	P	EA	1					10	0	011-011
007	4230-4754		CONN, 20 POS, CARD EDGE RIBBON	95	NG	P	1		C	P	EA	1					10	0	011-011
009	4230-8281		KEY, POLARIZING (3M)	95	CW	X	1		C	U	EA	2					10	0	011-011
011	0034-7067		CABLE, 28 AWG, 50 COND, RIBBON JKTD	95	NO	X	1		C	U	FT	5					10	0	011-011

NOTES:

REV A RESTRICTED RELEASE
REV 1 RELEASED PER PRB #3212

EFFECTIVITY DATE: ALL

S I N G L E L E V E L B I L L S O F M A T E R I A L

PARENT PART: 2511-2034 CABLE ASSY, WINCHESTER (INT) UM: EA PROD CODE: 95 ECN: ASSEMBLY QTY: 1
ERC: SRCE CODE: A TYPE: 1 ABC: C PLAN CODE: P DATE: 10-AUG-83

ITEM NO	COMPONENT PART NUMBER	E R	DESCRIPTION / REMARKS	PR CD	COMM CODE	S C	T Y	S P	A B	P L	UM	EXTENDED QTY PER	START DATE	S/N	CLOSE DATE	S/N	OPR SEQ	LT OFF	STORES ACCOUNT
-A	2511-2034-1L		LIST OF MTL, CABLE, WINCHESTER(INT)	90		D	1		*	U	EA	0					10	0	011-011
-B	2511-2034-1D		ASSY DWG, CABLE, WINCHESTER (INT)	90		D	1		*	U	EA	0					10	0	011-011
001	4220-7600		CONN, 50 POS, FEM RIBBON PANEL MTG	95	NI	P	1		C	P	EA	1					10	0	011-011
005	4230-8755		CONN, 34 PIN FLAT CABLE, FEMALE	95	NC	P	1		C	P	EA	1					10	0	011-011
007	4230-9042		CONN, 20PIN, RIBBON, FEMALE	95	NC	P	1		C	P	EA	1					10	0	011-011
011	4203-3009		CABLE, FLAT 50 CONDUCTOR	24	WC	X	3		D	U	FT	1					10	0	011-011
013	4220-5948		CONN, CLIP C, RIBBON	95	HI	P	1		C	P	EA	2					10	0	011-011
015	7270-5157		SCREW,4-40X1/2 CAP BUTT SKT HD SST	99	HC	X	1		C	U	EA	2					10	0	011-011
017	5793-2001		NUT, MACH #4 KEP SS	99		X	3		C	U	EA	2					10	0	011-011

NOTES:

REV A RESTRICTED RELEASE
REV 1 RELEASED PER PRD #3212

END OF REPORT

PRINTED 02-NOV-83 10:10 GENRAD - VAD DML VERSION 08-FEB-82 PAGE 1

EFFECTIVITY DATE: ALL

S I N G L E L E V E L B I L L S O F M A T E R I A L

PARENT PART: 2511-2038 • CABLE ASSY, VCS REAR PANEL UM: EA PROD CODE: 99 ECN: 2787 ASSEMBLY QTY: 1
ERC: SRCE CODE: A TYPE: 1 ABC: C PLAN CODE: P DATE: 17-OCT-83

ITEM NO	COMPONENT PART NUMBER	E R	DESCRIPTION / REMARKS	PR CD	COMM CODE	S C	T Y	S P	A B	P L	UM	EXTENDED QTY PER	START DATE	START S/N	CLOSE DATE	CLOSE S/N	OPR SEQ	LT OFF	STORES ACCOUNT
-A	2511-2038-1L		LIST OF MTL, VCS REAR PANEL	99		D	1		*	U	EA	0					10	0	011-011
-B	2511-2038-10		ASSY DWG, VCS REAR PANEL	99		D	1		*	U	EA	0					10	0	011-011
-D	2511-2038-40		WIRELIST, VCS REAR PANEL	99		D	1		*	U	EA	0					10	0	011-011
002	4213-0066		CONN, BULKHEAD RCPTL, BNC TRIGGER, DIG TRIG, CLK IN, CLK OUT, A/D1-4	90	NA	P	1		B	P	EA	8					10	0	011-011
004	8163-3000		WIRE, SHIELDED CABLE (RG174A/U)	99	WC	X	1		C	U	FT	6					10	0	011-011
005	8433-3022		SHRINK SLEEVING, BLK .125 DIA	99		X	1		C	U	FT	0.3000					10	0	011-011
006	8163-2012		WIRE, STRANDED, TEF, WHT, 24AWG	99	WC	X	3		C	J	FT	1					10	0	011-011
007	8163-2016		WIRE, STRANDED, TEF, GRY 24 AWG	99	WC	X	3		D	U	FT	2					10	0	011-011
008	4220-6042		CONN, IDC, 4 PIN,.156 CTRS,24GA BLK P4	99		P	1		C	P	EA	1					10	0	011-011
009	4220-6043		CONN, IDC, 6 PIN,.156 CTRS,24GA BLK P3	99		P	1		C	P	EA	1					10	0	011-011
010	4220-6044		CONN, IDC,10 PIN,.156 CTRS,24GA BLK P5	99		P	1		C	P	EA	1					10	0	011-011
012	4103-0000		BUSHING, PANEL INSULATING	90	NI	P	1		C	P	EA	16					10	0	011-011
013	4313-0000		TIE WRAP, CABLE	97		X	1		C	U	EA	10					10	0	011-011
014	4313-0005		TIE WRAP, W/MARKER	99		X	1		C	J	EA	1					10	0	011-011

NOTES:

REV 1 RELEASED PER ECN 2787

END OF REPORT

PRINTED 02-NOV-83 10:10 GENRAD - VAD HML VERSION 08-FEB-82 PAGE 1

EFFECTIVITY DATE: ALL

S I N G L E L E V E L B I L L S O F M A T E R I A L

PARENT PART: 2511-2039 * CABLE ASSY, VCS FRONT PANEL UM: EA PROD CODE: 99 ECN: 2787 ASSEMBLY QTY: 1
ERC: SRCE CODE: A TYPE: 1 ABC: C PLAN CODE: P DATE: 17-OCT-83

ITEM NO	COMPONENT PART NUMBER	E R	DESCRIPTION / REMARKS	PR CD	COMM CODE	S C	T Y	S P	A B	? _	UM	EXTENDED QTY PER	START DATE	S/N	CLOSE DATE	S/N	OPR SEQ	LT OFF	STORES ACCOUNT
-A	2511-2039-1L		LIST OF MTL, VCS FRONT PANEL	99		D	1		*	U	EA	0					10	0	011-011
-B	2511-2039-1D		ASSY DWG, VCS FRONT PANEL	99		D	1		*	U	EA	0					10	0	011-011
-D	2511-2039-4D		WIRELIST, VCS FRONT PANEL	99		D	1		*	U	EA	0					10	0	011-011
002	4213-0161		CONNECTOR,BNC,RECPT CH1-4, TRIGGER	92	NA	P	1		9	P	EA	5					10	0	011-011
004	8163-2012		WIRE, STRANDED, TEF, WHT, 24AWG	99	WC	X	3		C	J	FT	0.5000					10	0	011-011
005	8163-2016		WIRE, STRANDED, TEF, GRY 24 AWG	99	WC	X	3		D	U	FT	1					10	0	011-011
006	4220-6042		CONN, IDC, 4 PIN,.156 CTRS,24GA BLK P6	99		P	1		C	P	EA	1					10	0	011-011
007	4220-6043		CONN, IDC, 6 PIN,.156 CTRS,24GA BLK P1	99		P	1		C	P	EA	1					10	0	011-011
008	8163-3000		WIRE, SHIELDED CABLE (RG174A/U)	99	WC	X	1		C	J	FT	4					10	0	011-011
010	8433-3022		SHRINK SLEEVING, BLK .125 DIA	99		X	1		C	J	FT	0.2000					10	0	011-011
013	4313-0000		TIE WRAP, CABLE	97		X	1		C	U	EA	7					10	0	011-011
014	4313-0005		TIE WRAP, W/MARKER	99		X	1		C	U	EA	1					10	0	011-011

NOTES:

REV 1 RELEASED PER ECN 2787

PRINTED 02-FEB-83 07:59 GENRAD - VAD BML VERSION 08-FEB-82 PAGE 1

EFFECTIVITY DATE: ALL

S I N G L E L E V E L B I L L S O F M A T E R I A L

PARENT PART: 2511-3000 ASSY FRAME, VCS UM: EA PROD CODE: 98 ECN: ASSEMBLY QTY: 1

ERC: SRCE CODE: A TYPE: 1 ABC: A PLAN CODE: P DATE: 05-JAN-83

ITEM NO	COMPONENT PART NUMBER	E R	DESCRIPTION / REMARKS	PR CD	COMM CODE	S C	T Y	S P	A B	P L	UM	EXTENDED QTY PER	START DATE	S/N	CLOSE DATE	S/N	OPR SEQ	LT OFF	STORES ACCOUNT
-A	2511-3000-1L		LIST OF MTL, ASSY FRAME, VCS	98		D	1		*	U	EA	0					10	0	011-011
-B	2511-3000-1D		ASSY DWG, ASSY FRAME, VCS	98		D	1		*	U	EA	0					10	0	011-011
001	1762-3289		POWER SUPPLY 12VDC 8 AMPS 375 WATTS	93	PA	P	1	P	A	F	EA	1					10	0	011-011
003	2501-8068		PANEL, FRONT, FAN	93	FP	P	1		C	P	EA	1					10	0	011-011
005	2501-8071		PANEL, LEFT SIDE + HAT SECTION	93	FP	P	1		C	P	EA	1					10	0	011-011
007	2501-8066		PANEL, RIGHT SIDE	93	FP	P	1		B	P	EA	1					10	0	011-011
009	2511-8001		PANEL, LCV REAR	98	FB	P	1		B	P	EA	1					10	0	011-011
011	2501-8070		STIFFENER, SHIELD, CENTER	93	FP	P	1		C	P	EA	1					10	0	011-011
013	2501-8067		GUSSET, CAPTIVE	93	FP	P	1		C	P	EA	4					10	0	011-011
015	2501-8076		MOUNTING, ANGLE	93	FP	P	1		C	P	EA	1					10	0	011-011
017	2501-8081		BAR MOUNTING	93	FP	P	1		C	P	EA	1					10	0	011-011
019	2501-8075		BAFFLE, AIRFLOW	93	FP	P	1		C	P	EA	1					10	0	011-011
021	5183-0010		FAN, AXIAL, 115V	99	FB	P	1		A	P	EA	2					10	0	011-011
023	5183-0006		FINGER GUARD, FAN	99	FB	P	1		C	P	EA	4					10	0	011-011
025	4103-0002		BUSHING, SNAP	99		P	1		C	P	EA	1					10	0	011-011
027	4110-2720		BUSHING, SNAP	93		X	1		C	U	EA	1					10	0	011-011
029	4313-0006		TIE WRAP, ADHESIVE BACKED MOUNT	99		X	3		C	U	EA	3					10	0	011-011
031	2511-2019		CABLE ASSY, BACKPLANE POWER P2/P3	98		A	1		C	P	EA	1					10	0	011-011
034	7043-1020		SCREW, FLT HD, 4-40 X 3/8LG	99		X	3		C	U	EA	19					10	0	011-011
036	7043-1047		SCREW, PAN HD, 6-32 X 3/8LG	99		X	3		C	U	EA	17					10	0	011-011
038	7043-1052		SCREW, PAN HD, 6-32 X 7/8 LG	90		X	3		D	U	EA	16					10	0	011-011
040	8043-2002		WASHER, LOCK, NO. 6	99		X	3		D	U	EA	4					10	0	011-011
042	8063-1002		WASHER, FLAT, #6	99		X	3		C	U	EA	20					10	0	011-011
044	7043-1076		SCREW, PHIL PAN HD, 8-32 X 1 LG	99		X	1		C	U	EA	4					10	0	011-011

EFFECTIVITY DATE: ALL

S I N G L E L E V E L B I L L S O F M A T E R I A L

PARENT PART: 2511-3000 ASSY FRAME, VCS UM: EA PROD CODE: 98 ECN: ASSEMBLY QTY: 1
ERC: SRCE CODE: A TYPE: 1 ABC: A PLAN CODE: P DATE: 05-JAN-83

ITEM NO	COMPONENT PART NUMBER	E R	DESCRIPTION / REMARKS	PR CD	COMM CODE	S C	T Y	S P	A B	P L	UM	EXTENDED QTY PER	START DATE	START S/N	CLOSE DATE	CLOSE S/N	OPR SEQ	LT OFF	STORES ACCOUNT
046	7043-1058		SCREW, PHIL FLT HD, 8-32 X 1/2 LG	99		X	1		C	U	EA	4					10	0	011-011
048	5793-2002		NUT, 6-32, KEP	99		X	3		C	U	EA	16					10	0	011-011
050	8043-2003		WASHER, LOCK, #8	24		X	3		D	U	EA	4					10	0	011-011
052	8063-1003		WASHER, FLAT, NO 8	99		X	3		C	U	EA	4					10	0	011-011
054	7650-3110		SPACER, 3/8OD, 7/16L, #8 THRU ALUM	93		P	1		C	P	EA	4					10	0	011-011
056	7043-1049		SCREW, PAN HD, 6-32 X 1/2LG	99		X	3		C	U	EA	3					10	0	011-011
058	7043-1074		SCREW, PAN HD, 8-32 X 3/4LG	99		X	3		C	U	EA	1					10	0	011-011
060	2510-2014		CABLE ASSEMBLY, FAN & POWER (P1)	94		A	1		C	P	EA	1					10	0	011-011
062	4313-0007		CLAMP, FLAT CABLE	90		X	1		C	U	EA	3					10	0	011-011
064	2511-2012		CABLE ASSY, DISC POWER	98		A	1		C	P	EA	1					10	0	011-011

NOTES:

REV 1 PRE-RELEASE

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EFFECTIVITY DATE: ALL

S I N G L E L E V E L B I L L S O F M A T E R I A L

PARENT PART: 2511-3002 * ASSY, MINI FLOPPY UM: EA PROD CODE: 98 ECN: 2776 ASSEMBLY QTY: 1
ERC: SRCE CODE: N TYPE: 1 ABC: C PLAN CODE: P DATE: 29-SEP-83

ITEM NO	COMPONENT PART NUMBER	E R	DESCRIPTION / REMARKS	PR CD	COMM CODE	S C	T Y	S P	A B	? _	UM	EXTENDED QTY PER	START DATE	S/V	CLOSE DATE	S/V	OPR SEQ	LT OFF	STORES ACCOUNT
-A	2511-3002-1L		LIST OF MTL, ASSY, MINI FLOPPY	98		D	1		*	J	EA	0					10	0	011-011
-B	2511-3002-1D		ASSY DWG, ASSY, MINI FLOPPY	98		D	1		*	J	EA	0					10	0	011-011
001	2515-0044		BEZEL, FLOPPY	95	FP	F	1		B	?	EA	2					10	0	011-011
002	2515-0045		BASE, FLOPPY	95	FO	P	1		B	?	EA	1					10	0	011-011
003	2515-0046		COVER, FLOPPY	95	FO	P	1		B	?	EA	1					10	0	011-011
005	5260-2123		FOOT, RUBBER (50-70 S.D.H.)	95	HA	P	1		C	?	EA	4					10	0	011-011
006	7770-1560		STANDOFF, 6-32 X 7/16 LG MALE-FEM	95	HE	P	1		C	P	EA	4					10	0	011-011
009	7270-5130		SCREW, 6-32X3/8 CAP BUTT SKT HD SST	99	HC	X	1		C	J	EA	8					10	0	011-011
010	7270-4522		SCREW, 6-32X1/4 CAP SKT HD SST	99	HC	X	1		C	J	EA	8					10	0	011-011
011	8043-0002		WASHER, SPLIT LK #6	99		X	1		C	U	EA	18					10	0	011-011
012	8063-1002		WASHER, FLAT, #6	99		X	1		C	J	EA	18					10	0	011-011
013	1765-3222		DISK, 5 1/4" FLOPPY	95	PA	P	1	P	A	F	EA	1					10	0	011-011
014	2515-8960		CLAMP, RIBBON CABLE	95	FA	P	1		C	?	EA	1					10	0	011-011
015	7270-4525		SCREW, 6-32X5/8 CAP SKT HD SST	99	HC	X	1		C	J	EA	2					10	0	011-011
016	2511-2003	*	CABLE ASSY, 1ST MINI FLOPPY SIGNAL	98		A	1		C	P	EA	1					10	0	011-011
018	2511-2004	*	CABLE ASSY, DISK POWER	98		A	1		C	?	EA	1					10	0	011-011
019	1755-3239		INSERT, FLOPPY SHIPPING CARD	99	GE	P	1		C	?	EA	1					10	0	011-011
020	2515-7011		LABEL, CAUTION FLOPPY	99	GE	P	1		C	?	EA	1					10	0	011-011

NOTES:

REV 1 PRE-RELEASE
REV 2 REVISED PER ECN 2705
REV 3 REVISED PER ECN 2731
REV 4 RELEASED PER ECN 2776

END OF REPORT

PRINTED 02-FEB-83 08:01 GENRAD - VAD BML VERSION 08-FEB-82 PAGE 1

EFFECTIVITY DATE: ALL

S I N G L E L E V E L B I L L S O F M A T E R I A L

PARENT PART: 2511-3006 CRT ASSY 12", 110V UM: EA PROD CODE: 98 ECN: ASSEMBLY QTY: 1
ERC: SRCE CODE: M TYPE: 1 ABC: C PLAN CODE: P DATE: 05-JAN-83

ITEM NO	COMPONENT PART NUMBER	E R	DESCRIPTION / REMARKS	PR CD	COMM CODE	S C	T Y	S P	A B	P L	UM	EXTENDED QTY PER	START DATE	START S/N	CLOSE DATE	CLOSE S/N	OPR SEQ	LT OFF	STORES ACCOUNT
-A	2511-3006-1L		LIST OF MTL, CRT ASSY 12", 110V	98		D	1		*	U	EA	0					10	0	011-011
001	2511-2022		CRT 12", BASIC ASSY	98		A	1		A	P	EA	1					10	0	011-011
003	4203-0012		CABLE, POWER, 7 1/2 FT	92	WC	P	1		C	P	EA	1					10	0	011-011
004	1923-2140-01		CABLE ASSEMBLY, COAX, BNC PLUG 7 FT	99		A	1		B	F	EA	1					10	0	011-011
005	5330-1400		FUSE, SLO BLO (1A)	99	FC	X	3		C	U	EA	1					10	0	011-011
009	1762-4308		MANUAL, MDS3000 CRT SERVICE	94		D	1		*	U	EA	1					10	0	011-011

NOTES:

REV 1 PRE-RELEASE

EFFECTIVITY DATE: ALL

S I N G L E L E V E L B I L L S O F M A T E R I A L

PARENT PART: 2511-3007 CRT ASSY 12", 220V UM: EA PROD CODE: 98 ECN: ASSEMBLY QTY: 1
EPC: SMCE CODE: N TYPE: 1 ABC: C PLAN CODE: P DATE: 06-JAN-83

ITEM NO	COMPONENT PART NUMBER	E R	DESCRIPTION / REMARKS	PR CD	COMM CODE	S C	T Y	S P	A H	P L	UM	EXTENDED QTY PER	START DATE	S/N	CLOSE DATE	S/N	OPR SEQ	LT OFF	STORES ACCOUNT
-A	2511-3007-1L		LIST OF MTL, CRT ASSY 12", 220V	98		D	1		*	U	EA	0					10	0	011-011
001	2511-2022		CRT 12", BASIC ASSY	98		A	1		A	P	EA	1					10	0	011-011
003	2510-2021		CABLE, POWER, 220V, CRT	94		A	1		C	P	EA	1					10	0	011-011
005	1923-2140-01		CABLE ASSEMBLY, COAX, BNC PLUG 7 FT	99		A	1		B	F	EA	1					10	0	011-011
007	5330-1000		FUSE, SLO-BLO, 1/2A	99	FC	X	3		C	U	EA	1					10	0	011-011
009	1762-4308		MANUAL, MDS3000 CRT SERVICE	94		D	1		*	U	EA	1					10	0	011-011

NOTES:

REV 1 PRE-RELEASE

EFFECTIVITY DATE: ALL

S I N G L E L E V E L B I L L S O F M A T E R I A L

PARENT PART: 2511-3009 • KEYBOARD ASSY, VCS UM: EA PROD CODE: 98 ECN: 2717 ASSEMBLY QTY: 1
ERC: SRCE CODE: A TYPE: 1 ABC: C PLAN CODE: P DATE: 09-MAY-83

ITEM NO	COMPONENT PART NUMBER	E R	DESCRIPTION REMARKS	PR CD	COMM CODE	S C	T Y	S P	A B	P L	UM	EXTENDED QTY PER	START DATE	S/N	CLOSE DATE	S/N	OPR SEQ	LT OFF	STORES ACCOUNT
-A	2511-3009-1L		LIST OF MTL, KEYBOARD ASSY, VCS	98		D	1		*	U	EA	0					10	0	011-011
-B	2511-3009-10		ASSY DWG, KEYBOARD ASSY, VCS	98		D	1		*	J	EA	0					10	0	011-011
001	1765-7005		KEYBOARD, SKELETON, WITH KEYS	98	HE	P	1		C	P	EA	1					10	0	011-011
002	5439-2000		INDICATOR,AUDIO,CONT(MOD X10P05)F/P	93	KL	P	1		C	P	EA	1					10	0	011-011
003	2510-2002		CABLE ASSEMBLY, EXTERNAL KEYBOARD	94		A	1		C	P	EA	1					10	0	011-011
004	2501-7013		INSULATING SHEET (FISH PAPER)	93	FA	X	1		C	P	EA	1					10	0	011-011
005	2511-0053	•	INLAY, SPECIAL FNCTN KEYS	98	FD	P	1		C	P	EA	1					10	0	011-011
006	1923-7008		LABEL IDENT.	99	GE	P	1		C	P	EA	1					10	0	011-011
007	2511-8015		FRAME ASSY MARKED, KEYBOARD	98	FD	P	1		B	P	EA	1					10	0	011-011
008	2511-8016		PANEL, KEYBOARD	98	FD	P	1		C	P	EA	1					10	0	011-011
009	2257-8002		CLAMP	99	HL	P	1		C	P	EA	1					10	0	011-011
010	2511-8017		BASE, KEYBOARD MARKED	98	FD	P	1		B	P	EA	1					10	0	011-011
011	2267-6001		LEG	99	FH	P	1		C	P	EA	2					10	0	011-011
012	5260-0700		FOOT, SOFT (COMPLETE)	99	XD	P	1		C	P	EA	2					10	0	011-011
013	5260-2050		FOOT, SOFT	99	XD	P	1		C	P	EA	2					10	0	011-011
015	7573-0033		SPACER, HEX, 6-32 X 3/8LG	99	HF	P	1		C	P	EA	4					10	0	011-011
017	7013-1045		SCREW, PAN HD, 6-32 X 1/4	99		X	1		D	U	EA	4					10	0	011-011
019	7013-1113		SCREW, PHIL PAN HD, 10-32 X 1 LG	99		X	1		C	U	EA	2					10	0	011-011
021	8063-1004		WASHER, FLAT, NO 10	99		X	1		C	U	EA	2					10	0	011-011
023	8063-1002		WASHER, FLAT, #6	99		X	1		C	U	EA	8					10	0	011-011
025	5793-0014		NUT, HEX, 4-40 NC, SMALL PATTERN	92		X	3		C	U	EA	2					10	0	011-011
027	8043-2001		WASHER, LOCK, NO. 4	24		X	3		D	U	EA	2					10	0	011-011
029	7043-1051		SCREW, PAN HD, 6-32 X 1/2	99		X	3		D	U	EA	4					10	0	011-011
031	5793-0015		NUT, HEX, 6-32 NC (SMALL PATT)	99		X	3		C	U	EA	2					10	0	011-011

EFFECTIVITY DATE: ALL

S I N G L E L E V E L B I L L S O F M A T E R I A L

PARENT PART: 2511-3009 • KEYBOARD ASSY, VCS UM: EA PROD CODE: 98 ECN: 2717 ASSEMBLY QTY: 1
ERC: SRCE CODE: A TYPE: 1 ABC: C PLAN CODE: P DATE: 09-MAY-83

ITEM NO	COMPONENT PART NUMBER	E R	DESCRIPTION / REMARKS	PR CD	COMM CODE	S C	T Y	S P	A B	? L	UM	EXTENDED QTY PER	START DATE	S/N	CLOSE DATE	S/N	OPR SEQ	LT OFF	STORES ACCOUNT
033	8043-2002		WASHER, LOCK, NO. 6	99		X	3		D	U	EA	10					10	0	011-011

NOTES:

REV 1 PRE-RELEASE
REV 2 REVISED PER ECN 2706
REV 3 RELEASED PER ECN 2717

END OF REPORT

PRINTED 17-OCT-83 10:48 GENRAD - VAD BML VERSION 09-FEB-82 PAGE 1

EFFECTIVITY DATE: ALL

S I N G L E L E V E L B I L L S O F M A T E R I A L

PARENT PART: 2511-3010 * ASSY, WINCHESTER UM: EA PROD CODE: 98 ECN: 2776 ASSEMBLY QTY: 1
ERC: SRCE CODE: A TYPE: 1 ABC: C PLAN CODE: P DATE: 29-SEP-83

ITEM NO	COMPONENT PART NUMBER	E R	DESCRIPTION REMARKS	PR CO	COMM CODE	S C	T Y	S P	A B	?	UM	EXTENDED QTY PER	START DATE	START S/N	CLOSE DATE	CLOSE S/N	OPR SEQ	LT OFF	STORES ACCOUNT
-A	2511-3010-1L		LIST OF MTL, WINCHESTER	98		D	1	*	J		EA	0					10	0	011-011
-B	2511-3010-10		ASSY DWG, WINCHESTER	98		D	1	*	U		EA	0					10	0	011-011
001	2515-0044		BEZEL, FLOPPY	95	FP	F	1	B	?		EA	2					10	0	011-011
002	2515-0045		BASE, FLOPPY	95	FO	P	1	B	?		EA	1					10	0	011-011
003	2515-0046		COVER, FLOPPY	95	FO	P	1	B	P		EA	1					10	0	011-011
005	5260-2123		FOOT, RUBBER (50-70 S.D.H.)	95	HA	P	1	C	P		EA	4					10	0	011-011
006	7770-1560		STANDOFF, 6-32 X 7/16 LG MALE-FEM	95	HC	P	1	C	P		EA	4					10	0	011-011
009	7270-3130		SCREW, 6-32X3/8 CAP BUTT SKT HD SST	99	HC	X	1	C	J		EA	4					10	0	011-011
010	7270-4522		SCREW, 6-32X1/4 CAP SKT HD SST	99	HC	X	1	C	U		EA	8					10	0	011-011
011	8343-3002		WASHER, SPLIT LK #6	99		X	1	C	U		EA	14					10	0	011-011
012	8363-1002		WASHER, FLAT, #6	99		X	1	C	U		EA	14					10	0	011-011
013	1765-3221		DISK DRIVE, WINCH 5 1/4" 10M BYTE	95	PK	P	1	P	A	P	EA	1					10	0	011-011
014	2515-3060		CLAMP, RIBBON CABLE	95	FA	P	1	C	?		EA	1					10	0	011-011
015	7270-4525		SCREW, 6-32X3/8 CAP SKT HD SST	99	HC	X	1	C	U		EA	2					10	0	011-011
016	2511-2033		CABLE ASSY, WINCHESTER (EXT)	98		A	1	C	?		EA	1					10	0	011-011
018	2511-2004	*	CABLE ASSY, DISK POWER	98		A	1	C	P		EA	1					10	0	011-011

NOTES:

REV A RESTRICTED RELEASE
REV 1 RELEASED PER PRR #3212
REV 2 REVISED PER ECN 2776

END OF REPORT

PRINTED 07-OCT-83 08:53 GENRAD - VAD RMI VERSION 08-FEB-82 PAGE 1

EFFECTIVITY DATE: ALL

S I N G L E L E V E L B I L L S O F M A T E R I A L

PARENT PART: 2511-3011 * ASSY, REMOTE COMM PANEL UM: EA PROD CODE: 98 ECN: 2776 ASSEMBLY QTY: 1
ERC: SPCE CODE: A TYPE: 1 ABC: C PLAN CODE: P DATE: 29-SEP-83

ITEM NO	COMPONENT PART NUMBER	E R	DESCRIPTION REMARKS	PR CD	COMM CODE	S C	T Y	S P	A B	P L	UM	EXTENDED QTY PER	START DATE	START S/N	CLOSE DATE	CLOSE S/N	OPR STD	LT OFF	STORES ACCOUNT
-A	2511-3011-1L		LIST OF MTL, ASSY, REMOTE COMM PNL	98		D	1		*	U	EA	0					10	0	011-011
-B	2511-3011-1D		ASSY DWG, REMOTE COMM PNL	98		D	1		*	U	EA	0					10	0	011-011
001	2511-3024		CHASSIS, REMOTE COMMUNICATION	98	FA	P	1		C	P	EA	1					10	0	011-011
002	2511-3026		COVER, CHAN-SEL, REMOTE COMMUN	98	FA	P	1		C	P	EA	1					10	0	011-011
004	2511-2028		CABLE ASSY, COMMANDS FROM REMOTE	98		A	1		C	P	EA	1					10	0	011-011
006	2511-2029		CABLE ASSY, STATUS TO REMOTE	98		A	1		C	P	EA	1					10	0	011-011
008	5260-2123		FOOT, RUBBER (50-70 S.D.H.)	95	HA	P	1		C	P	EA	4					10	0	011-011
009	7270-4522		SCREW, 6-32X1/4 CAP SKT HD SST	99	HC	X	1		C	U	EA	4					10	0	011-011
011	7043-1048		SCREW, PAN HD, 6-32 X 7/16LG	99		X	3		C	U	EA	2					10	0	011-011
012	2511-8027		PLATE, RELIEF	98	FA	P	1		C	P	EA	1					10	0	011-011
014	2511-8028		BRACKET, COVER MOUNTING	98	FA	P	1		C	P	EA	2					10	0	011-011
015	8043-0002		WASHER, SPLIT LK #6	99		X	1		C	U	EA	2					10	0	011-011
016	7343-1039		SCREW, FLT HD, 6-32 X 7/16LG	90		X	3		C	U	EA	6					10	0	011-011
017	6099-2105		RES, CMP, 1K 1/4W 5 PCT	99	RB	P	1		C	P	EA	16					10	0	011-011
018	4230-2301		CONN, RCPTL BNC (UG1094A/U)	99	NA	P	1		C	P	EA	32					10	0	011-011
019	7923-0001		TERMINAL, SOLDER LUG 3/8ID	99	HG	P	1		C	P	EA	2					10	0	011-011
020	4313-0006		TIE WRAP, ADHESIVE BACKED MOUNT	99		X	3		C	U	EA	1					10	0	011-011
021	4313-0090		TIE WRAP, CABLE	97		X	1		C	U	EA	1					10	0	011-011

NOTES:

REV A RESTRICTED RELEASE
REV 1 RELEASED PER ECN 2776

EFFECTIVITY DATE: ALL

S I N G L E L E V E L B I L L S O F M A T E R I A L

PARENT PART: 2511-3012 32K WORD MEMORY UM: EA PROD CODE: 98 ECN: ASSEMBLY QTY: 1
ERC: SRCE CODE: N TYPE: 1 ABC: C PLAN CODE: F DATE: 09-SEP-83

ITEM NO	COMPONENT PART NUMBER	E R	DESCRIPTION / REMARKS	PR CD	COMM CODE	S C	T Y	S P	A B	P L	UM	EXTENDED QTY PER	START DATE	START S/N	CLOSE DATE	CLOSE S/N	OPR SEQ	LT OFF	STORES ACCOUNT
-A	2511-3012-1L		LIST OF MTL, 32K WORD MEMORY	98		D	1		*	U	EA	0					10	0	011-011
001	1765-0041		MEMORY CARD, 32K DATARAM DR1156	94	UC	P	1		A	P	EA	1					10	0	011-011

NOTES:

REV A RESTRICTED RELEASE
REV 1 RELEASED PER PRB #3210

EFFECTIVITY DATE: ALL

S I N G L E L E V E L B I L L S O F M A T E R I A L

PARENT PART: 2511-3013 LSI 11/2 CPU UM: EA PROD CODE: 98 ECN: ASSEMBLY QTY: 1
ERC: SRCE CODE: N TYPE: 1 ABC: C PLAN CODE: F DATE: 09-SEP-83

ITEM NO	COMPONENT PART NUMBER	E R	DESCRIPTION REMARKS	PR CD	COMM CODE	S C	T Y	S P	A B	P L	UM	EXTENDED QTY PER	START DATE	START S/N	CLOSE DATE	CLOSE S/N	OPR SEQ	LT OFF	STORES ACCOUNT
-A	2511-3013-1L		LIST OF MTL, LSI 11/2 CPU	98		D	1		*	U	EA	0					10	0	011-011
001	2510-2020		PCB ASSY, KD11-HA MODIFIED	94		N	1	P	C	F	EA	1					10	0	011-011

NOTES:

REV A RESTRICTED RELEASE
REV 1 RELEASED PER PRB #3210

EFFECTIVITY DATE: ALL

SINGLE LEVEL BILLS OF MATERIAL

PARENT PART: 2511-3015 • ASSY, 16 CHANNEL SELECTOR UM: EA PROD CODE: 98 ECN: 2776 ASSEMBLY QTY: 1
ERC: SRCE CODE: A TYPE: 1 ABC: C PLAN CODE: P DATE: 29-SEP-83

ITEM NO	COMPONENT PART NUMBER	E R	DESCRIPTION REMARKS	PR CD	COMM CODE	S C	T Y	S P	A B	P L	UM	EXTENDED QTY PER	START DATE	START S/N	CLOSE DATE	CLOSE S/N	OPR SEQ	LT OFF	STORES ACCOUNT
-A	2511-3015-1L		LIST OF MTL, ASSY, 16 CH SELECTOR	98		D	1		*	U	EA	0					10	0	011-011
-B	2511-3015-1D		ASSY DWG, ASSY, 16 CH SELECTOR	98		D	1		*	U	EA	C					10	0	011-011
-C	2511-3015-2D		WIRE DIAGM, ASSY, 16 CH SELECTOR	98		D	1		*	U	EA	0					10	6	011-011
-P	1923-1175		IPS, 16 CHANNEL SELECTOR	99		D	*		C	U	00	0					10	0	011-011
001	2511-9025		CHASSIS, CHANNEL SELECTOR	98	FA	P	1		C	P	EA	1					10	0	011-011
002	2511-8026		COVER, CHAN-SEL, REMOTE COMMUN	98	FA	P	1		C	P	EA	1					10	0	611-011
004	1923-4987		CARD ASSY, 16 CHANNEL SELECTOR	98		A	1	S	B	P	EA	1					10	0	011-011
006	2511-2024		CABLE ASSY, CHANNEL SELECTOR (EXT)	98		A	1		C	P	EA	1					10	0	011-011
009	8163-2018		WIRE, STRANDED, TEF, WHT, 22AWG	99	WC	X	3		C	U	FT	2					10	0	011-011
010	8163-2023		WIRE, STRANDED, TEF, BRN, 22 AWG	99	WC	X	1		C	U	FT	3					10	0	011-011
015	0013-0008		WASHER, FLAT, FIBER	99		X	3		C	U	EA	6					10	0	011-011
017	4213-0161		CONNECTOR,BNC,RECPT	92	NA	P	1		B	P	EA	17					10	0	011-011
018	8163-3000		WIRE, SHIELDED CABLE (RG174A/U)	99	WC	X	1		C	U	FT	12					10	0	011-011
019	5260-2123		FOOT, RUBBER (50-70 S.D.H.)	95	NA	P	1		C	*	EA	4					10	0	011-011
020	7270-4522		SCREW, 6-32X1/4 CAP SKT HD SST	99	WC	X	1		C	U	EA	6					10	0	011-011
021	7043-1038		SCREW, PAN HD, 6-32 X 3/8LG	99		X	1		C	U	EA	6					10	0	011-011
022	7043-1045		SCREW, PAN HD, 6-32 X 1/4	99		X	1		D	U	EA	6					10	0	011-011
023	2511-9027		PLATE, RELIEF	98	FA	P	1		C	P	EA	1					10	0	011-011
024	8063-1002		WASHER, FLAT, #6	99		X	1		C	U	EA	2					10	0	011-011

NOTES:

REV A RESTRICTED RELEASE
REV 1 RELEASED PER ECN 2776

EFFECTIVITY DATE: ALL

S I N G L E   L E V E L   B I L L S   O F   M A T E R I A L

PARENT PART: 2511-4701 * PCB ASSY, Q-DAS
ERC: SRCE CODE: A TYPE: 1 UM: LA ABC: B PROD CODE: 98 PLAN CODE: F ECN: 2846 DATE: 07-MAR-84 ASSEMBLY QTY: 1

ITEM NO	COMPONENT PART NUMBER	E R	DESCRIPTION	REMARKS	PR CD	COMM CODE	S C	T Y	S >	A B	P L	UM	EXTENDED QTY PER	START DATE	S/N	CLOSE DATE	S/N	OPR SEQ	LT OFF	STORES ACCOUNT
-A	2511-4701-1L		LIST OF MTL, PCB ASSY, Q-DAS		98		D	1		*	U	EA	0					10	0	011-011
-B	2511-4701-1D		ASSY DWG, PCB ASSY, Q-DAS		98		D	1		*	U	EA	0					10	0	011-011
-C	2511-4701-2D		SCHEM, PCB ASSY, Q-DAS		98		D	1		*	U	EA	0					10	0	011-011
001	2511-0701		PCB FAB, Q-DAS		98	PA	P	1		A	P	EA	1					10	0	011-011
002	1762-3529		HANDLE ASSEMBLY, HEX BOARD		90	FQ	P	1		B	P	EA	1					10	0	011-011
006	5418-1130		IC, QUAD BUS XCVR (DM8838/8T38)	U92-95,U98-100	90	JF	P	1		B	P	EA	7					10	0	011-011
008	5431-9678		IC, HEX BUS RECEIVER (8837/8T37)	U97	99	IC	P	1		C	P	EA	1					10	0	011-011
010	5431-8600		IC, NAND, QUAD 2 IN POS, 74LS00	U38,67	99	IC	P	1		C	P	EA	2					10	0	011-011
012	5431-8602		IC, NOR, QUAD 2 IN POS, 74LS02	U52,69,83	99	IC	P	1		C	P	EA	3					10	0	011-011
014	5431-8604		IC, INVERTER, HEX, 74LS04	U53	99	IC	P	1		C	P	EA	1					10	0	011-011
016	5431-6608		IC, QUAD 2 IN POS AND, 74LS08	U26,32,65,66,68,85	92	IC	P	1		C	P	EA	6					10	0	011-011
018	5431-8632		IC, QUAD, 2 IN POS OR 74LS32	U42,51	92	IC	P	1		C	P	EA	2					10	0	011-011
020	5431-8674		IC, FLIP-FLOP, DUAL D-TYPE, 74LS74	U23,25,41,46,54,81 U84	99	IC	P	1		C	P	EA	7					10	0	011-011
022	5431-8685		IC, 4 BIT MAGNITUDE COMPAR, 74LS85	U62,63	92	IC	P	1		C	P	EA	2					10	0	011-011
024	5431-8486		IC, QUAD 2 IN EXCLUSIVE OR, 74S86	U29	99	IB	P	1		C	P	EA	1					10	0	011-011
026	5431-8738		IC, DECODER, 3 TO 8 LINES, 74LS138	U50	99	IC	P	1		C	P	EA	1					10	0	011-011
028	5431-8775		IC, FLIP-FLOP, QUAD D-TYPE, 74LS175	U96	99	IC	P	1		C	P	EA	1					10	0	011-011
030	5431-8425		I.C., ASYNCHRONOUS FI-FO MEMORIES	U47-49	93	IC	P	1		B	P	EA	3					10	0	011-011
032	5418-1257		IC, OCTAL TRI-STATE INV 74LS240	U82	92	IC	P	1		B	P	EA	1					10	0	011-011
034	5431-8844		IC, BUFFER OCT TRI-SET (74LS244)	U59,75,79,80,90	93	IC	P	1		B	P	EA	5					10	0	011-011
036	5418-1197		IC, FLIP FLOP D TYPE 74LS273	U40,64,78	92	IC	P	1		B	P	EA	3					10	0	011-011
038	2511-6000		IC, PROM, PROGMD, U39, 5418-1289	U39	98		N	1		C	P	EA	1					10	0	011-011
040	5431-8973		IC, OCTAL "D" TYPE LATCH (74LS373)	U60,76	98	IC	P	1		C	P	EA	2					10	0	011-011
042	5418-1203		IC, COUNTER, DUAL 4 BIT 74LS393	U24	99	IC	P	1		C	P	EA	1					10	0	011-011

EFFECTIVITY DATE: ALL

S I N G L E L E V E L B I L L S O F M A T E R I A L

PARENT PART: 2511-4701 * PCB ASSY, Q-DAS UM: EA PROD CODE: 96 ECN: 2846 ASSEMBLY QTY: 1
ERC: SRCE CODE: A TYPE: 1 ABC: B PLAN CODE: I DATE: 07-MAR-84

ITEM NO	COMPONENT PART NUMBER	E R	DESCRIPTION / REMARKS	PR CD	COMM CODE	S C	I Y	S P	A M	P L	UM	EXTENDED QTY PER	START DATE	S/N	CLOSE DATE	S/N	OPR SEQ	LT OFF	STORES ACCOUNT
043	5431-8406		IC, FLIP-FLOP, DUAL D-TYPE, 74S74 U131	99	IB	P	1		B	P	EA	1					10	0	011-011
044	5431-8673		IC,ONS HOLD TIME DUAL JK FL/FL W/CL U33	98	IC	P	1		C	P	EA	1					10	0	011-011
046	5431-8769		IC,4BIT LD UP/DWN CNTR W/EN 74LS169 U30,44,56,U72-74 U88,89	98	IC	P	1		C	P	EA	8					10	0	011-011
048	5431-8977		IC, OCT LATCH W/ENAB & CLK 74LS377 U34,35,45,57,58,61, U77,91	98	IC	P	1		C	P	EA	8					10	0	011-011
050	5431-8979		IC, 4BIT LATCH W/ENAB & CLK 74LS379 U31,36	98	IC	P	1		C	P	EA	2					10	0	011-011
052	5431-8021		IC, SINGLE RETRIGERABLE ONE SHOT U37	98	IA	P	1		C	P	EA	1					10	0	011-011
054	5432-0254		OSCILLATOR, 2.62144 MHZ CRYSTAL OSC1	98	JI	P	1		C	P	EA	1					10	0	011-011
055	7540-3224		SOCKET, 24 PIN DIP, .6W XU28	99	NH	P	1		C	P	EA	1					10	0	011-011
056	5429-5053		IC, D/A, CONVERTER, 12 BIT (AD565) U28	95	JD	P	1		B	P	EA	1					10	0	011-011
058	5429-5059		IC, D/A CONVERTER, 12 BIT, 18 PIN U55	98	JD	P	1		C	P	EA	1					10	0	011-011
059	7498-0064		SOCKET, IC, LO-PRO, 18 PIN XU55,86	98	SO	P	1		C	P	EA	2					10	0	011-011
060	5418-1149		IC, OP AMPL, LH0002CH U27	99	JA	P	1		B	P	EA	1					10	0	011-011
062	5432-7220		IC,1OF8 ANAL CH SEL W/ENAB LF13508D U71	98	JE	P	1		C	P	EA	1					10	0	011-011
064	5429-5047		IC,8 BIT D/A CONV 2 QUAD (DAC0800L) U87	98	JD	P	1		C	P	EA	1					10	0	011-011
065	7540-1816		SOCKET, IC, 16 PIN XU87	00	XO	P	1		C	P	EA	1					10	0	011-011
066	5429-6014		IC, ANALOG TO DIGITAL CONV 8 BIT U86	98	JD	P	1		C	P	EA	1					10	0	011-011
068	5432-7001		IC, OP AMPL, QUAD BIFET (TL084C) U1-22,43,70	95	JA	P	1		B	P	EA	24					10	0	011-011
070	2515-0351		HYBRID, THIN FILM RES/CAPS HB2,7,12,17,22,27,33	95	XO	P	1		B	P	EA	7					10	0	011-011
071	2515-0352		HYBRID, THIN FILM RES/CAPS HB1,6,11,16,21,26,31	95	XO	P	1		B	P	EA	7					10	0	011-011
072	2515-0353		HYBRID, THIN FILM RES/CAPS HB4,9,14,19,24,29,32	95	XO	P	1		B	P	EA	7					10	0	011-011
073	2515-0354		HYBRID, THIN FILM RES/CAPS HB3,8,13,18,23,28,34	95	XO	P	1		B	P	EA	7					10	0	011-011
074	2515-0355		HYBRID, THIN FILM RES/CAPS HB5,15,20,25,30,35 HB10	95	XO	P	1		B	P	EA	7					10	0	011-011
075	2515-0356		HYBRID, THIN FILM RES HB36-40	95	XO	P	1		B	P	EA	5					10	0	011-011

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EFFECTIVITY DATE: ALL

S I N G L E L E V E L B I L L S O F M A T E R I A L

PARENT PART: 2511-4701 * PCB ASSY, G-DAS UM: EA PROD CODE: 98 ECN: 2646 ASSEMBLY QTY: 1
ERC: SRCE CODE: A TYPE: 1 ABC: B PLAN CODE: F DATE: 07-MAR-84

ITEM NO	COMPONENT PART NUMBER	ER	DESCRIPTION / REMARKS	PR CD	COMM CODE	SC	TY	SP	AB	PL	UM	EXTENDED QTY PER	START DATE	S/N	CLOSE DATE	S/N	OPR SEQ	LT OFF	STORES ACCOUNT
077	6099-1335		RES, CMP, 330 1/4W 5 PCT R44,62	99	RB	P	1		C	P	EA	2					10	0	011-011
078	6099-1125		RES, CMP, 120 1/4W 5 PCT R92	99	RB	P	1		C	P	EA	1					10	0	011-011
079	6099-0515		RES, CMP, 51 1/4W 5 PCT R43,47,66,67	99	RB	P	1		C	P	EA	4					10	0	011-011
081	6099-2245		RES, CMP, 2.4K 1/4W 5 PCT R65	99	RB	P	1		C	P	EA	1					10	0	011-011
083	6134-9023		RES, SINGLE-IN-LINE, 1K RP1,2	99	RD	P	1		C	P	EA	2					10	0	011-011
085	6099-2105		RES, CMP, 1K 1/4W 5 PCT R49,51,R55-61,63,64, R69-71,78,79,81,82	99	RB	P	1		C	P	EA	18					10	0	011-011
087	6250-2200		RES, FLM, 20.0K 1/8W 1 PCT R84-86	99	RC	P	1		C	P	EA	3					10	0	011-011
089	6250-1249		RES, FLM, 2.49K 1/8W 1 PCT R80,83,88,91	24	RC	P	7		C	P	EA	4					10	0	011-011
091	6134-9027		RES, SINGLE-IN-LINE, 10K 5 PCT RP3	99	RD	P	1		C	P	EA	1					10	0	011-011
093	6250-2100		RES, FLM, 10K 1/8W 1 PCT R87	99	RC	P	1		C	P	EA	1					10	0	011-011
095	6350-2402		RES, FLM, 40.2K 1/4W 1 PCT R74,75,89	98	RC	P	1		C	P	EA	3					10	0	011-011
097	6134-0017		RES, FLM, 820 1/4W 5 PCT R50,52	93	RC	P	1		C	P	EA	2					10	0	011-011
101	6250-2806		RES, FLM, 80.6K 1/8W 1 PCT R68	99	RC	P	1		C	P	EA	1					10	0	011-011
103	6099-0105		RES, CMP, 10 1/4W 5 PCT R1,3,7,9,13,15,19,21 R25,27,31,33,37,39, R45,46,48,53,54,72, R73,76,77,90	99	RB	P	1		C	P	EA	24					10	0	011-011
105	6250-3100		RES, FLM, 100K 1/8W 1 PCT R4,10,16,22,28,34,40	99	RC	P	1		C	P	EA	7					10	0	011-011
107	6250-3107		RES, FLM, 107K, 1/8W, 1% R2,8,14,20,26,32,38	99	RC	P	1		C	P	EA	7					10	0	011-011
109	6250-1464		RES, FLM, 4.64K, 1/8W, 1% R6,12,18,24,30,36,42	98	RC	P	1		C	P	EA	7					10	0	011-011
111	6250-2158		RES, FLM, 15.8K 1/8W 1 PCT R5,11,17,23,29,35,41	98	RC	P	1		C	P	EA	7					10	0	011-011
113	4383-0023		CAP,CER,.1UF,+80-20%,50VDC,.25"AX C5,6,9,10,21,22,25, C26,37,38,41,42,53, C54,57,58,69,70,73 C74,85,86,89,90,102, C103,105,106, C113-117,120,122,123 C125-137,C139-142, C144,145,C147-153 C157,158	95	CA	P	1		B	P	EA	64					10	0	011-011

EFFECTIVITY DATE: ALL

S I N G L E L E V E L B I L L S O F M A T E R I A L

PARENT PART: 2511-4701 * PCB ASSY, Q-DAS UM: EA PROD CODE: 98 ECN: 2846 ASSEMBLY QTY: 1
ERC: SRCE CODE: A TYPE: 1 ABC: B PLAN CODE: F DATE: 07-MAR-84

ITEM NO	COMPONENT PART NUMBER	E R	DESCRIPTION / REMARKS	PR CD	COMM CODE	S C	T Y	S P	A B	P L	UM	EXTENDED QTY PER	START DATE	S/N	CLOSE DATE	S/N	OPR SEQ	LT OFF	STORES ACCOUNT
114	4700-0441		CAP, MIC, 150PF 500V 5 PCT C124	99	CF	P	1		C	P	EA	1					10	0	011-011
115	4383-3002		CAP, MIC, 10PF 500V 5 PCT C138	99	CF	P	1		C	P	EA	1					10	0	011-011
117	4700-0231		CAP, MIC, 24PF 500V 5 PCT C143	99	CF	P	1		C	P	EA	1					10	0	011-011
119	4383-0022		CAP, CER, .01UF, 100V, 20 PCT C146	99	CA	P	1		B	P	EA	1					10	0	011-011
121	4383-3009		CAP, MIC, 1200PF 100V 5 PCT C121	90	CF	P	1		C	P	EA	1					10	0	011-011
123	4383-5061		CAP, TAN, 10UF, 35V, 10 PCT C118,119,C154-156	92	CD	P	1		C	P	EA	5					10	0	011-011
125	4862-1344		CAP, 10.63NF, 1%, 100V, 8KHZ,SUBMIN C1-4,7,12-16	98	CE	P	1		C	P	EA	10					10	0	011-011
126	4862-1345		CAP, 1.25NF, 1%, 100V, 8KHZ,SUBMIN C8,11	98	CE	P	1		C	P	EA	2					10	0	011-011
127	4862-1346		CAP, 26.25NF, 1%, 100V, 4KHZ,SUBMIN C17-20,23,28-32	98	CE	P	1		C	P	EA	10					10	0	011-011
128	4862-1347		CAP, 2.5NF, 1%, 100V, 4KHZ,SUBMIN C24,27	98	CE	P	1		C	P	EA	2					10	0	011-011
129	4862-1350		CAP, 57.5NF, 1%, 100V, 2KHZ,SUBMIN C33-36,39,44-48	98	CE	P	1		C	P	EA	10					10	0	011-011
130	4862-1351		CAP, 5.0NF, 1%, 100V, 2KHZ,SUBMIN C40,43	98	CE	P	1		C	P	EA	2					10	0	011-011
131	4862-1352		CAP, 120NF, 1%, 100V, 1KHZ,SUBMIN C49-52,55,60-64	98	CE	P	1		C	P	EA	10					10	0	011-011
132	4862-1353		CAP, 10NF, 1%, 100V, 1KHZ,SUBMIN C56,59	98	CE	P	1		C	P	EA	2					10	0	011-011
133	4862-1360		CAP, 36.67NF, 1%, METAL POLY FILM C65-68,71,76-80	98	CE	P	1		C	P	EA	10					10	0	011-011
134	4862-1358		CAP, 3.3NF, 1%, METAL POLY FILM C72,75	98	CE	P	1		C	P	EA	2					10	0	011-011
135	4862-1361		CAP, 245NF, 1% METAL POLY FILM C81-84,87,92-96	98	CE	P	1		C	P	EA	10					10	0	011-011
136	4862-1359		CAP, .02UF, 1%, METAL PLY FILM C88,91	98	CE	P	1		C	P	EA	2					10	0	011-011
137	4862-1356		CAP, .62UF, 1%, 100V, 200HZ,SUBMIN C97-101,108-112	98	CE	P	1		C	P	EA	10					10	0	011-011
138	4862-1357		CAP, 50NF, 1%, 100V, 200HZ,SUBMIN C104,107	98	CE	P	1		C	P	EA	2					10	0	011-011
139	4383-3005		CAP, MIC, 820PF 300V 5 PCT C159	99	CF	P	1		C	P	EA	1					10	0	011-011
140	6088-0046		DIODE, RECTIFIER 1N4001 CR1-4	92	KC	P	1		C	P	EA	4					10	0	011-011
142	5418-1213		IC, VOLT REG +12V UA78M12HC VR2	92	JB	P	1		C	P	EA	1					10	0	011-011
144	5418-1214		IC, VOLT REG -12V UA79M12AHC VR1	92	JB	P	1		C	P	EA	1					10	0	011-011

FRI. 07-MAR-84 13:22 GENRAD - VAD BML VERSION 08-FEB-82 PAGE

EFFECTIVITY DATE: ALL

SINGLE LEVEL BILLS OF MATERIAL

PARENT PART: 2511-4701 • PCB ASSY, Q-DAS UM: EA PROD CODE: 98 ECN: 2846 ASSEMBLY QTY: 1
ERC: SRCE CODE: A TYPE: 1 ABC: B PLAN CODE: F DATE: 07-MAR-84

ITEM NO	COMPONENT PART NUMBER	E R	DESCRIPTION / REMARKS	PR CD	COMM CODE	S C	T Y	S P	A B	P L	UM	EXTENDED QTY PER	START DATE	S/N	CLOSE DATE	S/N	OPR SEQ	LT OFF	STORES ACCOUNT
146	6090-2091		RELAY 5V DPST 8 PIN (14 PIN DIP) / K1	94	SI	P	1		C	P	EA	1					10	0	011-011
148	4213-0034		CONN, JACK RCPTL MINI COAX / J2-4	99	NI	P	1		B	P	EA	3					10	0	011-011
150	4230-2900		CONNECTOR, MINI JUMPER / JP1	93	NI	P	1		C	P	EA	1					10	0	011-011
152	4230-6680		HEADER, RT ANGLE QUICK EJECT / J1	95	NF	P	1		C	P	EA	1					10	0	011-011
154	7923-0009		TERMINAL, POST .025SQ .328H .445L	99		X	3		B	U	EA	66					10	0	011-011
156	4230-9085		CONN, PCB, HEADER / JP1	93	NB	P	1		C	P	EA	1					10	0	011-011

NOTES:

REV F RESTRICTED RELEASE
REV 1 PRE-RELEASE ECN 2681/2696
REV 2 REVISED PER ECN 2715
REV 3 REVISED PER ECN 2746
REV 4 REVISED PER ECN 2758
REV 5 REVISED PER ECN 2846

END OF REPORT

PRINTED 22-JUN-83 08:53 GENRAD - VAD RPL VERSION 08-FEB-82 PAGE 1

EFFECTIVITY DATE: ALL

S I N G L E L E V E L B I L L S O F M A T E R I A L

PARENT PART: 2511-9401 RS-232 INTERFACE, MULTIPORT UM: EA PROD CODE: 98 ECN: ASSEMBLY QTY: 1
ERC: SRCE CODE: N TYPE: 1 ABC: C PLAN CODE: F DATE: 09-FEB-83

ITEM NO	COMPONENT PART NUMBER	E R	DESCRIPTION REMARKS	PR CD	COMM CODE	S C	T Y	S P	A R	P L	UM	EXTENDED QTY PER	START DATE	START S/N	CLOSE DATE	CLOSE S/N	OPR SEQ	LT OFF	STORES ACCOUNT
-A	2511-9401-1L		LIST OF MTL, RS-232 INTFC,MULTIPORT	98		D	1		*	U	EA	0					10	0	011-011
-P	2511-1001		PROCEDURE, RS-232 INSTALLATION	98		D	1		C	U	EA	1					10	0	011-011
001	1765-0066		SERIAL LINE INFC PCB FM-DLV11J	95	PA	P	1	P	A	F	EA	1					10	0	011-011
003	2511-2030		CABLE ASSY, RS-232 INTERFACE	98		A	1		C	P	EA	1					10	0	011-011
005	4220-5847		JACK SOCKET ASSEMBLY	94	NH	P	1		C	P	ST	4					10	0	011-011
006	2510-2029	*	TEST PLUG, FEMALE	94		A	1	P	*	F	EA	4					10	0	011-011

NOTES:

REV 1 RELEASED PER PRB 3205

PRINTED 07-OCT-83 08:54 GENRAD - VAD BPL VERSION 08-FEB-82 PAGE 1

EFFECTIVITY DATE: ALL

S I N G L E L E V E L B I L L S O F M A T E R I A L

PARENT PART: 2511-9402 • MINIFLOPPY, ADD ON UM: EA PROD CODE: 98 ECN: 2776 ASSEMBLY QTY: 1
ERC: SPCE CODE: N TYPE: 1 ABC: C PLAN CODE: F DATE: 29-SEP-83

ITEM NO	COMPONENT PART NUMBER	E R	DESCRIPTION REMARKS	PR CD	COMM CODE	S C	T Y	S P	A B	P L	UM	EXTENDED QTY PER	START DATE	START S/N	CLOSE DATE	CLOSE S/N	OPR SEQ	LT OFF	STORES ACCOUNT
-A	2511-9402-1L		LIST OF MTL, MINI FLOPPY, ADD ON	98		D	1		•	U	EA	0					10	0	011-011
-02	2511-9402-1D		ASSY DWG, MINI FLOPPY, ADD ON	99		D	1		•	U	EA	0					10	0	011-011
001	2515-8044		BEZEL, FLOPPY	95	FP	F	1		B	P	EA	2					10	0	011-011
002	2515-8045		BASE, FLOPPY	95	FO	P	1		B	P	EA	1					10	0	011-011
003	2515-8046		COVER, FLOPPY	95	FO	P	1		B	P	EA	1					10	0	011-011
005	5260-2123		FOOT, RUBBER (50-70 S.D.H.)	95	HA	P	1		C	P	EA	4					10	0	011-011
006	7770-1560		STANDOFF, 6-32 X 7/16 LG MALE-FEM	95	HE	P	1		C	P	EA	4					10	0	011-011
007	2511-7000		LABEL, DRIVE "0"	98	GE	P	1		C	P	EA	1					10	0	011-011
008	2511-7001		LABEL, DRIVE "1"	98	GE	P	1		C	P	EA	1					10	0	011-011
009	7270-5130		SCREW, 6-32X3/8 CAP BUTT SKT HD SST	99	HC	X	1		C	U	EA	8					10	0	011-011
010	7270-4522		SCREW, 6-32X1/4 CAP SKT HD SST	99	HC	X	1		C	U	EA	8					10	0	011-011
011	8543-9002		WASHER, SPLIT LK #6	99		X	1		C	U	EA	14					10	0	011-011
012	8043-1302		WASHER, FLAT, #6	99		X	1		C	U	EA	14					10	0	011-011
013	1765-3222		DISK, 5 1/4" FLOPPY	95	PA	P	1	P	A	E	EA	1					10	0	011-011
014	2515-8060		CLAMP, RIBBON CABLE	95	FA	P	1		C	P	EA	1					10	0	011-011
015	7270-4525		SCREW, 6-32X5/8 CAP SKT HD SST	99	HC	X	1		C	U	EA	2					10	0	011-011
016	2511-2031	•	CABLE ASSY, ADD ON MINIFLOPPY, SIGNAL	98		A	1		C	P	EA	1					10	0	011-011
018	2511-2032	•	CABLE ASSY, ADD ON MINI FLOPPY, PWR	98		A	1		C	P	EA	1					10	0	011-011
020	2511-1002		PROCEDURE, MINI FLOPPY INSTALLATION	98		D	1		•	U	EA	1					10	0	011-011
021	2515-7011		LABEL, CAUTION FLOPPY	99	GE	P	1		C	P	EA	1					10	0	011-011
022	1765-3239		INSERT, FLOPPY SHIPPING CARD	99	GE	P	1		C	P	EA	1					10	0	011-011

NOTES:

REV 1 RELEASED PER PRB 3206
REV 2 REVISED PER ECN 2776

PRINTED 22-JUN-83 08:53 GENRAD - VAD LPL VERSION 08-FEB-82 PAGE 1

EFFECTIVITY DATE: ALL

S I N G L E L E V E L B I L L S O F M A T E R I A L

PARENT PART: 2511-9405 DIGITAL PLOTTER, (TEK 4662) UM: EA PROD CODE: 98 FCN: ASSEMBLY QTY: 1
ERC: SRCE CODE: N TYPE: 1 ABC: C PLAN CODE: F DATE: 22-APR-83

ITEM NO	COMPONENT PART NUMBER	E R	DESCRIPTION REMARKS	PR CD	COMM CODE	S C	T Y	S P	A B	P L	UM	EXTENDED QTY PER	START DATE	START S/N	CLOSE DATE	CLOSE S/N	OPR SEQ	LT OFF	STORES ACCOUNT
-A	2511-9405-1L		LIST OF MTL, DIG PLOTTER (TEK 4662)	98		D	1		*	U	EA	0					10	0	011-011
-P	0000-0054		INCOMING INSP/4662 DIG PLOTTER	99		D	*		*	U	EA	0					10	0	011-011
002	1762-3169		PLOTTER, DIGITAL	90	DH	N	1		A	U	EA	1					10	0	011-011
004	4213-0077		CONN, PLUG 230V 3 WIRE	99	NI	P	1	S	C	P	EA	0					10	0	011-011
005	5330-1000		FUSE, SLO-BLO, 1/2A	99	FC	X	3		C	U	EA	0					10	0	011-011
007	1762-4163		MANUAL, DIGITAL PLOTTER (4662)	90	PA	P	1		C	U	EA	1					10	0	011-011
008	1762-4174		MANUAL, SERVICE (4662)	90	PA	P	1		B	U	EA	1					10	0	011-011
009	2511-1001		PROCEDURE, RS-232 INSTALLATION	98		D	1		C	U	EA	1					10	0	011-011
011	2510-2024		CABLE ASSY, 4662 PLOTTER INTERFACE	94		A	1		C	P	EA	1					10	0	011-011

NOTES:

REV 1 RELEASED PER PRB 3207

PRINTED 07-OCT-83 13:18 GENRAD - VAD BML VERSION 08-FEB-82 PAGE 1

EFFECTIVITY DATE: ALL

S I N G L E L E V E L B I L L S O F M A T E R I A L

PARENT PART: 2511-9404 * REMOTE COMMUNICATION INTERFACE UM: EA PROD CODE: 98 ECN: 2776 ASSEMBLY QTY: 1
ERC: SRCE CODE: N TYPE: 1 ABC: C PLAN CODE: F DATE: 29-SEP-83

ITEM NO	COMPONENT PART NUMBER	C R	DESCRIPTION REMARKS	PR CD	COMM CODE	S C	T Y	S P	A B	?	UM	EXTENDED QTY PER	START DATE	START S/N	CLOSE DATE	CLOSE S/N	OPR SEQ	LT OFF	STORES ACCOUNT
-A	2511-9404-1L		LIST OF MTL, REMOTE COMM INFC	98		D	1		*	U	EA	0					10	0	011-011
001	2511-3011	*	ASSY, REMOTE COMM PANEL	98		A	1		C	P	EA	1					10	0	011-011
002	2511-1055		PROCEDURE, RCI INSTALLATION	98		D	1		*	U	EA	1					10	0	011-011
003	2511-2035		CABLE ASSY, RCI TEST	98		A	1		C	P	EA	1					10	0	011-011
004	1765-0067		INTERFACE, 16 BIT PARALLEL	98	PA	P	1	P	A	F	EA	1					10	0	011-011
006	4220-5847		JACK SOCKET ASSEMBLY	94	NM	P	1		C	P	EA	2					10	0	011-011
003	2511-2027		CABLE ASSY, PARALLEL INTERFACE I/O	98		A	1		C	P	EA	1					10	0	011-011
026	2511-0028		BRACKET, COVER MOUNTING (USED FOR RACK MOUNT)	98	FA	P	1		C	P	EA	2					10	0	011-011

NOTES:

REV 1 RELEASED PER PRD 3208
REV 2 REVISED PER ECN 2776

END OF REPORT

PRINTED 16-SEP-83 07:59 GENRAD - VAD BNL VERSION 08-FEB-82 PAGE 1

EFFECTIVITY DATE: ALL

S I N G L E L E V E L B I L L S O F M A T E R I A L

PARENT PART: 2511-9413 OPTION, LSI 11/23 CPU REPLACEMENT UM: EA PROD CODE: 98 ECN: ASSEMBLY QTY: 1
ERC: SRCE CODE: N TYPE: 1 ABC: C PLAN CODE: F DATE: 09-SEP-83

ITEM NO	COMPONENT PART NUMBER	E R	DESCRIPTION / REMARKS	PR CD	COMM CODE	S C	T Y	S P	A B	P L	UM	EXTENDED QTY PER	START DATE	S/N	CLOSE DATE	S/N	OPR SEQ	LT OFF	STORES ACCOUNT
-A	2511-9413-1L		LIST OF MTL,OPTION,LSI 11/23 CPU	98		D	1		*	U	EA	0					10	0	011-011
001	2515-4711	*	PCB ASSY, MODIFIED LSI11/23	95		N	1	P	C	F	EA	1					10	0	011-011

NOTES:

REV A RESTRICTED RELEASE
REV 1 RELEASED PER PRN #3210

PRINTED 02-DEC-83 15:10 GENRAD - VAD BML VERSION 08-FEB-82 PAGE 1

EFFECTIVITY DATE: ALL

S I N G L E L E V E L B I L L S O F M A T E R I A L

PARENT PART: 2511-9700-1 * VIB CONTROL SYSTEM ASSY, 110V UM: EA PROD CODE: 98 ECN: 2785 ASSEMBLY QTY: 1
ERC: SPEC CODE: N TYPE: 1 ABC: C PLAN CODE: F DATE: 29-SEP-83

ITEM NO	COMPONENT PART NUMBER	E R	DESCRIPTION REMARKS	PF CC	COMP CODE	S C	T Y	S P	A H	P L	UM	EXTENDED QTY PER	START DATE	S/N	CLOSE DATE	S/N	OPR SEQ	LT OFF	STORES ACCOUNT
-#	2511-9700-1-1L		LIST OF MTL, VIB CONTROL SYS, 110V	98		D	1		*	U	EA	0					10	0	011-011
-C1	2511-3001-2D		SCHEM, VIB CTL SYS EC)	98		D	1		*	U	EA	0					10	0	011-011
-E1	2511-9700-1B		BLOCK DIAGM, VIB CONT SYS, 110/220V	98		D	1		*	U	EA	0					10	0	011-011
002	2511-2000		ASSY, 115V POWER MODULE	98		A	1		C	P	EA	1					10	0	011-011
004	2511-3009		KEYBOARD ASSY, VCS	98		A	1		C	P	EA	1					10	0	011-011
006	2511-3006		CRT ASSY 12", 110V	98		A	1	P	C	P	EA	1					10	0	011-011
008	2511-3001	*	ASSY, VIB CTL SYSTEM LCX	98		A	1		C	P	EA	1					10	0	011-011
010	2511-3002	*	ASSY, MINI FLOPPY	98		N	1	P	C	P	EA	1					10	0	011-011
012	2511-8020		LABEL, PANEL LOGO	98	CE	P	1		C	P	EA	1					10	0	011-011
020	2511-0620		SOFTWARE, RANDOM	98		D	1		*	U	EA	2					10	0	011-011
027	2511-0690		DIAGNOSTICS, XXDP (QTY 2)	98		D	1		*	U	EA	2					10	0	011-011
029	2511-0691		DIAGNOSTICS, VCS	98		D	1		*	U	EA	2					10	0	011-011
031	2511-0605		SOFTWARE, RUN-TIME PT11	98		D	1		*	U	EA	2					10	0	011-011
035	2511-0120		MANUAL, 2511 RANDOM OPERATING	98		D	1		*	U	EA	1					10	0	011-011
039	2511-0100		MANUAL, 2511 SYSTEM DESCRIPTION	98		D	1		*	U	EA	1					10	0	011-011
041	2511-0101		MANUAL, 2511 SERVICE	98		D	1		*	U	EA	1					10	0	011-011
043	2511-0102		DRAWINGS, 2511 REFERENCE	98		D	1		*	U	EA	1					10	0	011-011
045	2511-0190		MANUAL, VCS DIAGNOSTICS	98		D	1		C	U	EA	1					10	0	011-011
046	1765-3229		INSERT, FLOPPY SHIPPING CARD	99	CE	X	1		C	U	EA	1					10	0	011-011
047	2515-7011		LABEL, CAUTION FLOPPY	99	CE	P	1		C	P	EA	1					10	0	011-011
048	2511-2010		BACKPLANE ASSY, VCS LSI	98		A	1		B	P	EA	1					10	0	011-011
049	2501-4700		CARD ASSEMBLY, CPU BOARD	9?		A	1	F	A	F	EA	1					10	0	011-011
051	2501-4701-01	*	FROM BOARD ASSEMBLY	9?		A	1	F	A	F	EA	1					10	0	011-011
053	2501-4702	*	CARD ASSY, DISPLAY CONTROLLER	9?		A	1	F	A	F	EA	1					10	0	011-011

EFFECTIVITY DATE: ALL

S I N G L E L E V E L B I L L S O F M A T E R I A L

PARENT PART: 2511-9700-1 • VIB CONTROL SYSTEM ASSY, 110V LM: EA PROD CODE: 9E ECN: 2785 ASSEMBLY QTY: 1
ERC: SRCE CODE: N TYPE: 1 ABC: C PLAN CODE: F DATE: 29-SEP-83

ITEM NO	COMPONENT PART NUMBER	F R	DESCRIPTION / REMARKS	PR CC	COMM CODE	S C	T Y	S P	A B	P L	UM	EXTENDED QTY PER	START DATE	S/N	CLOSE DATE	S/N	OPR SEQ	LT OFF	STORES ACCOUNT
055	2501-4703		CARD ASSY, UNIBUS INTERFACE	93		A	1	P	A	F	EA	1					10	0	011-011
057	2501-2045		CABLE ASSY UNI-BUS MULTI-CHANNEL	93		A	1		B	P	EA	1					10	0	011-011
059	2511-2006		CABLE ASSY, Q-BUS UNIBUS INF 16"	98		A	1	F	C	F	EA	1					10	0	011-011
061	1762-3293		CABLE ASSY, Q-BUS/UNIBUS INTF 1"	94	FA	P	1	P	A	F	EA	1					10	0	011-011
063	2511-4701	*	PCB ASSY, Q-DAS	98		A	1	P	B	F	EA	1					10	0	011-011
065	2515-4714		PCB ASSY, MODIFIED WIN/FLP CONTROLR	99		A	1		C	P	EA	1					10	0	011-011
067	8043-2003		WASHER, LOCK, #8	97		X	1		D	U	EA	4					10	0	011-011
068	8063-1003		WASHER, FLAT, NO 8	99		X	1		C	U	EA	4					10	0	011-011
069	7043-1079		SCREW, PHIL PAN HD, 6-32 X 1-1/2 LG	99		X	1		C	U	EA	4					10	0	011-011
071	2510-0011		SPACER, .090 X .156 X 4.75, ALUM	94	MF	P	1		C	P	EA	2					10	0	011-011
073	2501-6060		CARD HOLD DOWN	93	FP	A	1		C	P	EA	4					10	0	011-011
075	1523-8163		SHEET, FISHPAPER	90	FP	F	1		C	U	EA	0					10	0	011-011

NOTES:

REV A RESTRICTED RELEASE
REV 1 RELEASED PER PRN #3210
REV 2 REVISED PER ECN 2776
REV 3 REVISED PER ECN 2785

EFFECTIVITY DATE: ALL

S I N G L E L E V E L B I L L S O F M A T E R I A L

PARENT PART: 2511-5700-2 • VIP CONTROL SYSTEM ASSY, 220V LM: IA PROD CODE: 50 ECN: 2785 ASSEMBLY QTY: 1
CRC: SPCE CODE: N TYPE: 1 ABC: C PLAN CODE: F DATE: 29-SEP-83

ITEM NO	COMPONENT PART NUMBER	ER	DESCRIPTION REMARKS	PR CD	COMM CODE	S C	T Y	S P	A O	P L	UM	EXTENDED QTY PER	START DATE	S/N	CLOSE DATE	S/N	OPR SEQ	LT OFF	STORES ACCOUNT
-A	2511-9700-2-1L		LIST OF MTL, VIP CONTROL SYS, 220V	98		D	1		•	U	EA	0					10	0	011-011
-C1	2511-3001-2C		SCHEM, VIB CTL SYS FCX	98		D	1		•	U	EA	0					10	0	011-011
-E1	2511-9700-1B		BLOCK DIAGM, VIP CONT SYS, 110/220V	98		D	1		•	U	EA	0					10	0	011-011
002	2511-2001		ASSY, 230V POWER MODULE	98		A	1		C	P	EA	1					10	0	011-011
004	2511-3005		KEYBOARD ASSY, VCS	98		A	1		C	P	EA	1					10	0	011-011
006	2511-3007		CRT ASSY 12", 220V	98		A	1		C	P	EA	1					10	0	011-011
008	2511-3001	•	ASSY, VIP CTL SYSTEM BOX	98		A	1		C	P	EA	1					10	0	011-011
010	2511-3002	•	ASSY, MINI FLOPPY	98		N	1	P	C	P	EA	1					10	0	011-011
012	2511-8020		LABEL, PANEL LOGO	98	CE	P	1		C	P	EA	1					10	0	011-011
020	2511-0620		SOFTWARE, RANDOM	98		D	1		•	U	EA	2					10	0	011-011
027	2511-0690		DIAGNOSTICS, XXDP (QTY 2)	98		D	1		•	U	EA	2					10	0	011-011
029	2511-0691		DIAGNOSTICS, VCS	98		D	1		•	U	EA	2					10	0	011-011
031	2511-0605		SOFTWARE, RUN-TIME RT11	98		D	1		•	U	EA	2					10	0	011-011
035	2511-0120		MANUAL, 2511 RANDOM OPERATING	98		D	1		•	U	EA	1					10	0	011-011
039	2511-0100		MANUAL, 2511 SYSTEM DESCRIPTION	98		D	1		•	U	EA	1					10	0	011-011
041	2511-0101		MANUAL, 2511 SERVICE	98		D	1		•	U	EA	1					10	0	011-011
043	2511-0102		DRAWINGS, 2511 REFERENCE	98		D	1		•	U	EA	1					10	0	011-011
045	2511-0190		MANUAL, VCS DIAGNOSTICS	98		D	1		C	U	EA	1					10	0	011-011
046	1765-3229		INSERT, FLOPPY SHIPPING CARD	99	CE	Y	1		C	U	EA	1					10	0	011-011
047	2515-7011		LABEL, CAUTION FLOPPY	99	CE	P	1		C	P	EA	1					10	0	011-011
048	2511-2010		BACKPLANE ASSY, VCS LST	98		A	1		B	F	EA	1					10	0	011-011
049	2501-4700		CARD ASSEMBLY, CPU FC/FF	93		A	1	P	A	F	EA	1					10	0	011-011
051	2501-4701-01	•	PROM BOARD ASSEMBLY	93		A	1	F	A	F	EA	1					10	0	011-011
053	2501-4702	•	CARD ASSY, DISPLAY CONTROLLER	93		A	1	F	A	F	EA	1					10	0	011-011

EFFECTIVITY DATE: ALL

S I N G L E L E V E L B I L L S O F M A T E R I A L

PARENT PART: 2511-9700-2 * VIP CONTROL SYSTEM ASSY, 220V UM: EA PROD CODE: 58 ECN: 2785 ASSEMBLY QTY: 1
ERC: SPCE CODE: N TYPE: 1 ABC: C PLAN CODE: F DATE: 25-SEP-83

ITEM NO	COMPONENT PART NUMBER	ER	DESCRIPTION / REMARKS	PR CD	COMP CODE	SC	TY	SP	AH	PL	UM	EXTENDED QTY PER	START DATE	S/N	CLOSE DATE	S/N	OPR SEQ	LT OFF	STORES ACCOUNT
055	2501-4702		CARD ASSY, UNIBUS INTERFACE	93		A	1	F	A	F	EA	1					10	0	011-011
057	2501-2045		CABLE ASSY UNI-BUS MULTI-CHANNEL	93		A	1		D	P	EA	1					10	0	011-011
059	2511-2006		CABLE ASSY, Q-BUS UNIBUS INF 16"	98		A	1	F	C	F	EA	1					10	0	011-011
061	1762-3293		CABLE ASSY, Q-BUS/UNIBUS INTF 1"	94	PA	P	1	P	A	F	EA	1					10	0	011-011
063	2511-4701	*	PCB ASSY, Q-DAS	58		A	1	F	H	F	EA	1					10	0	011-011
065	2515-4714		PCB ASSY, MODIFIED WIN/FLP CONTROLR	99		A	1		C	P	EA	1					10	0	011-011
067	8043-2003		WASHER, LOCK, #8	97		X	1		D	U	EA	4					10	0	011-011
068	8063-1003		WASHER, FLAT, NO 8	99		X	1		C	U	EA	4					10	0	011-011
069	7043-1075		SCREW, PHIL PAN HD, 8-32 X 1-1/2 LG	99		X	1		C	U	EA	4					10	0	011-011
071	2510-8011		SPACER, .090 X .156 X 4.75, ALUM	94	MF	F	1		C	P	EA	2					10	0	011-011
073	2501-8080		CARD HOLD DOWN	93	FP	A	1		C	P	EA	4					10	0	011-011
075	1923-8163		SHEET, FISHPAPER	90	FP	F	1		C	U	EA	0					10	0	011-011

NOTES:

REV A RESTRICTED RELEASE
REV 1 RELEASED PER FRR #3210
REV 2 REVISED PER ECN 2776
REV 3 REVISED PER ECN 2785

PRINTED 30-SEP-83 09:09 GENRAD - VAD DML VERSION 08-FEB-82 PAGE 1

EFFECTIVITY DATE: ALL

S I N G L E   L E V E L   B I L L S   O F   M A T E R I A L

PARENT PART: 2515-2021 • CABLE, INT WINCHESTER/FLOPPY SIGNAL UM: EA PROD CODE: 95 ECN: 2773 ASSEMBLY QTY: 1
ERC: SRCE CODE: A TYPE: 1 ABC: C PLAN CODE: F DATE: 29-SEP-83

ITEM NO	COMPONENT PART NUMBER	E R	DESCRIPTION / REMARKS	PR CD	COMM CODE	S C	T Y	S P	A D	P L	UM	EXTENDED QTY PER	START DATE	S/N	CLOSE DATE	S/N	OPR SEQ	LT OFF	STORES ACCOUNT
-A	2515-2021-1L		LIST OF MTL,CABLE,INT WINCH/FLOPPY	95		D	1		•	U	EA	0					10	0	011-011
-B	2515-2021-1D		ASSY DWG, CABLE, INT WINCH/FLOPPY	95		D	1		•	U	EA	0					10	0	011-011
-C	2515-2021-2D		SCHEM, CABLE, INT WINCH/FLOPPY	95		D	1		•	U	EA	0					10	0	011-011
001	4230-9043		CONN, 50PIN, RIBBON, FEMALE P1 DR INTCON P1 WINC 05	95	NC	P	1		B	P	EA	2					10	0	011-011
002	4203-3009		CABLE, FLAT 50 CONDUCTOR	24	NC	X	3		D	U	FT	2					10	0	011-011

NOTES:

REV A RESTRICTED RELEASE
REV 1 PRE-RELEASE PER ECN 2683
REV 2 RELEASE PER ECN 2727
REV 3 TRACKING PER ECN 2773